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HASTY HINTS ON SPRING WORK.

Clover Seed on Winter Wheat may be sown any time this month. Frost does not hurt it, unless it has germinated. It may be sown on the snow. Indeed, some suppose there is an advantage in so doing—the snow, as it melts, washing the seed into the ground. Unless the soil and the weather are very dry, however, there is little danger that the seed will not germinate. The wheat plants afford sufficient shade and moisture.

Last year, the weather was remarkably warm early in the spring, followed by protracted rain and cold. Much of the clover seed sown early had started, and the young plants perished. To avoid such failure, some of our best farmers sow part of the seed say the first week in April, and again about the 20th. This is double labor of sowing, but it lessens the risk of failure; and when the second sowing is crosswise the first, it secures a more even distribution of the seed.

It is well to sow a bushel of plaster per acre, for the benefit of the young clover plants. Many good farmers in Western New York think it is better to sow the plaster on the wheat at the time of sowing the clover, than to sow it on the clover the next spring. Some, however, think the plaster has a tendency to retard the ripening of the wheat; and if this is the case, of course the practice can not be recommended, as the liability to injury from the midge is largely augmented by any delay in the ripening processes. Whether plaster really has this effect or not, we can not tell. In Mr. Lawes' experiments, alkaline salts in connection with ammonia had a tendency to increase the quantity of straw without an increase of grain; *i. e.*, alkalies and ammonia gave no more grain, *but more straw*, than the same quantity of ammonia without alkalies. It is not improbable that plaster might have the same effect.

Since the advent of the midge, and the decreased quantity of land sown to wheat, clover is sown more extensively with spring grains. Barley is undoubtedly the best spring crop for this purpose. In England, nearly all the clover is sown with barley. The land is made as fine and mellow as possible, and the clover seed is generally sown after the barley has been harrowed in and the work completed, except rolling, which is done after the barley is up. If the land is at all cloddy, it is better to roll before the clover is sown. There is much more clover seed lost from burying it too deep than from not covering it at all. Several years ago, we recollect seeing the results of some careful experiments, made by Mr. Sterling, of Scotland, on sowing clover seed at different depths. More seeds germinated when covered very slightly (if we recollect aright, the eighth of an inch,) than at any greater depth—the decrease being in proportion to the depth. Those sown on the surface gave a less favorable result than those slightly covered, but better than any sown at a greater depth;—*i. e.*, those covered the eighth of an inch did best; those sown on the surface, nearly as well; those covered one-fourth of an inch, not quite so well as those on the surface; those covered half an inch, still worse; and so on, till at two inches they did not germinate at all.

As a general rule, clover does not succeed so well sown with oats as with barley, spring wheat, or rye, though we have known several instances where a good set of clover has been obtained when seeded with oats. With this crop, it would undoubtedly be safer to sow a little more seed.

For pasture, and when it is intended to plow up the land at the end of one or two years, we should sow nothing but clover. From four to six quarts, or from eight to twelve pounds, is the usual quantity in such cases. For mowing, six pounds of medium clover, and four and a half pounds of timothy seed, is the usual quantity, varying less or more according to the condition of the soil. We are in favor of thick seeding, and would much rather sow more than less. English farmers, as a rule, sow half as much again clover and grass seeds

per acre as we do, and a greater variety. They find their account in so doing. We have known experienced English farmers sow as much as 20 lbs. per acre of red clover, trefoil, and white Dutch, in addition to rye-grass. Our land is so well adapted to clover and grass, that such thick seeding is unnecessary here; but we are not sure if it would not sometimes be advantageous to sow more seed than we do.

There are few implements more needed on American farms than a light pair of harrows for covering small seeds. The roller answers the purpose to some extent; but if the soil is at all damp, and dry weather ensues, a hard crust forms on the surface, through which it is difficult for the seeds to penetrate. An implement which should combine the operation of roller and harrow, would be an improvement, for this purpose, upon either. The late Mr. Smith, of Deanston, invented an implement which is designed to accomplish this result. It is called the *web-harrow*. It consists of an iron chain web, connected by discs or quoits of iron which, lying obliquely upon their sides when in operation, roll around, thus tearing and abrading the surface of the ground, and grinding the smaller clods, so as to expose and disturb the surface sufficiently to cover the small seeds strewn upon it. The serrated form of the disc is shown at *a* in the accompanying figure, where the mode in which these discs bind the whole framework together is also exhibited at *b*. It is by the rubbing of the sides of the discs against the land, as they revolve, that they are especially useful, more than by the action of their edges, though that is also efficient to some extent. The price of this harrow in England is about $25, covering 25 square feet of ground. The common brush-harrow—a framework of wood interlaced with brush—forms a good substitute for the expensive implement of Mr. Smith. It merely scratches the surface, and so far gives the seeds a very shallow covering; but it wants the weight which makes the web-harrow to compress as well as abrade the surface, both of which conduce to its efficiency.

WEB-HARROW.

Barley.—Since the uncertainty of the wheat crop, the cultivation of barley is attracting more attention. Our short, dry, hot summers, are not as well adapted for barley as for wheat. Our best samples of wheat are heavier, finer, drier, and more farinaceous than the English; while our barley is decidedly inferior to that grown in the cool, long summers of the British Isles. Barley delights in a loose, warm, quick soil. Its roots spread but little—not half as far or deep as the roots of wheat. (See article on this subject in the last volume of the *Genesee Farmer*, page 270.) Hence the soil should be rich, and as loose as possible. It is probably owing to this fact that superphosphate of lime (which seems to develop the formation of roots) has a better effect on barley than on wheat. A clayey soil will produce good barley, if it can be made sufficiently light and porous. The best crop of barley we ever saw, was on a heavy clay soil that had been summer-fallowed for wheat, but which could not be got ready till too late to sow the wheat. It was sown to barley the next spring, and a magnificent crop was the result. As it is found that the wheat-midge attacks the barley, it is important to get it early; and the warmest land, other things being equal, will give the best result.

Fig. 1.

The common two-rowed barley (fig. 1) is one of the earliest and best varieties for medium soils. The *Chevalier* (fig. 2) is the most popular malting barley in Great Britain. It is heavier and thinner skinned than the common two-rowed barley, and, though it succeeds best on light soils, will do better than the former on clayey soil. The common four or six-rowed barley (fig. 3) is thought by some to yield better than the two-rowed; and though the sample is not quite as good, buyers make very little difference in the price. In England, on the other hand, where, on account of the

Fig. 2.

heavy duty, it is desirable to get the very best samples for malting purposes, the two-rowed kinds are generally preferred. In Ireland, the six-rowed is sown as a winter crop.

Fig. 8.

We must again express the belief that farmers are somewhat disposed to be too sparing of seed. We think two and a half bushels of barley per acre none too much when sown broadcast, or from two to two and a quarter when drilled. Of course, the earlier barley can be sown after the soil is in good working condition, the better.

Oats.—This crop should be attended to as soon as the soil is in good working order. Good crops of oats are frequently obtained when sown late, but it is generally better to sow early—say immediately after you are through sowing barley. Oats do much better than barley either on heavy clays or on low, mucky land. From one and a half bushels on the latter to two and a half bushels on the former soil is about the usual quantity of seed sown.

Pear.—In this section, and in others where the pea-bug prevails, this crop is not considered profitable. We believe, however, that peas might be grown with advantage on all wheat farms, for the purpose of feeding hogs early in the fall, before the bug does them much injury. That such a practice would enrich the land, there can be no doubt. They do well on an inverted sod, and are adapted to nearly all soils; but a strong wheat soil, well pulverized, suits them best. For feeding to hogs, the earlier they can be sown, the better. Sown late—say the 10th of June—they sometimes escape the bug. Two bushels per acre are usually sown. One or two bushels of plaster per acre will usually prove useful on peas.

Spring Wheat.—This crop has not given much satisfaction in this section, on dry upland that is suited to the growth of winter wheat. On land too low for winter wheat, and sown quite late—say middle of May—good crops in some instances have been grown, the midge doing little damage. The *Fife* is one of the best varieties for such land. The *Canada Club* is among the best kinds on dry upland, and should be sown early. Some farmers think it is not well to plow land too deep for spring wheat, and good crops have been obtained by merely cultivating it without plowing. We think spring wheat requires a more friable and finer-tilled soil than winter wheat. From one and a half to two bushels is the usual quantity of seed.

Howard's prize plow.

Plowing.—A word on this important operation is all that our space will allow.

Land should never be worked when it is wet. Subsequent cultivation will never correct the injury done land by plowing it when it is wet. *We plow too wide.* Our springs are so short, that it is desirable to plow as much land in a day as possible. But still it is bad policy to flop over such wide furrows. One of the objects of plowing is to pulverize the soil. This can be better done with narrow furrows than with wide flat ones. The best Scotch and English farmers consider that the *depth* and *width* of the furrow should bear a constant proportion—that the furrow should be rectilinear—and that, when raised, the exposed surfaces should be of equal breadth on either side of the furrow. We annex a cut of what is undoubtedly the best, the lightest draft, and most efficient English plow. A furrow seven inches deep by ten inches wide, with a lap of three inches, leaves seven inches on each side the furrow, and forms an admirable seed-bed when harrowed down.

How thick shall we sow Oats?—An experiment made on the State Farm at Westborough, Mass., to determine the best quantity of oats to sow per acre, resulted as follows: Two bushels of seed per acre gave 26½ bushels; three bushels, 40 bushels per acre; four bushels, 35½; and five bushels, 42 bushels per acre. Before the general introduction of underdraining, and other improved methods of cultivation, five bushels of oats per acre was the usual quantity sown in England. Now, three to four bushels are sown. In this section, two bushels are considered sufficient; and in the Western States, one and a half bushels. Probably we sow too little.

Cutting Potatoes—One Eye in a Set.—A correspondent of the *Country Gentleman*, records his testimony in favor of cutting potatoes in very small pieces, with one eye to each piece, for planting. He has tried it on a small scale with success. I have tried the same experiment with a favorable result.—John Bradfield, *Rochester.*

CROPS WHICH ENRICH THE SOIL.

One of the great needs of American agriculture is the introduction and extensive cultivation of such plants as enrich rather than impoverish the soil. So far as ascertained, the leguminous plants —such as peas, beans, and clover—belong to this class. So also do turnips and probably other cruciferous plants, when not raised for seed. On the other hand, the ceralia—including wheat, barley, oats, rye, maize, sugar cane, and the grasses proper, such as timothy, red-top, rye-grass, ect.,—impoverish the soil. They all have starchy seeds and glassy stems. They take from the soil, from rains, dews, and the atmosphere, more ammonia than they contain when grown. On the the other hand, the leguminous plants, turnips, etc., retain the ammonia; and when the plants are plowed in, or consumed on the land by animals, they increase the supply of ammonia in the soil.

All crops grown for feeding animals on a wheat farm, or for plowing under as a manure, should belong to the latter class, as much as possible. The time is come, in this section and in the older States, when the great aim of the farmer must be to enrich the soil. In determining which crop to raise for the purpose of feeding on the farm, we must not merely ask the simple question what crop will afford the most nutritious matter, but which will be ultimately the most profitable, taking into consideration its effect on the soil, the amount of nutritious food, and the value of the manure made by its consumption on the farm.

Where the object is to enrich the farm, it is a great waste of vegetable force to grow barley, oats, rye, corn, and the grasses, for the purpose of feeding animals on the farm. We should rather grow plants of a lower organization—plants which require less of that kind of food best suited to the growth of plants used as food for man. All will admit that to grow wheat to be fed to animals, for the purpose of enriching the soil as the primary object, would be a wasteful practice; and we believe the growth of the plants named, for this object, is wasteful also, though perhaps in a less degree.

If we can direct the attention of farmers to this subject, we believe many useful plants will soon be introduced which are now little known or cultivated in this country. For this purpose we have procured engravings of some of the most useful plants which experience indicates as belonging to that class of crops which enrich the soil.

White Lupine.—This plant has been used in Southern Europe for plowing in as a manure, since the days of Columella. We have frequently alluded to it as preëminently worthy of trial on the poor sandy soils of the Atlantic slope, especially where the climate is mild. It derives its name from *lupus*, a wolf, in allusion to its voracious qualities. It strikes its tap-roots deep in the soil, and it will flourish where many other plants would starve. It is of very rapid growth, produces a large amount of vegetable matter, and draws from the subsoil a large quantity of alkalies. It is rarely or never injured by drouth or insects, and is admirably adapted for enriching unfruitful sandy soils; while its strong stems and roots open and ameliorate, as well as enrich, heavy tenaceous clays. M. Vilmorin, of Paris, says it is sown in that vicinity about the middle of April, after all danger from frost is past. He says "the green manure yielded by this plant is excellent. The seeds, soaked in water, form a good cattle food, and the young plant is readily eaten by sheep." White lupins are now quoted in the large seedsmen's lists of England and France, and we hope they will be introduced into this country.

WHITE LUPINE.

Spurry (*Spergula arvensis*).—No plant has been more lauded for enriching sandy soils than spurry. Von Vogt states that by its use the "worst shifting sands may be made to yield remunerative crops of rye—that the green manuring every other year not only nourishes sufficiently the alternate crops of rye, but gradually enriches the soil—and that it increases the effect of any other manure that may subsequently be put on." He adds, also, that "spurry produces often as much improvement if eaten off by cattle as if plowed in; and that, when fed upon this plant, either green or in the state of hay, cows not only give more milk, but of a richer quality." The best seed comes from Riga. It can be sown any time during the spring or summer.

SPURRY.

It is often sown after wheat or potatoes, and plowed in the following spring. It is sown broadcast at the rate of 15 lbs. per acre. It grows with great rapidity, and two or three crops may be obtained in a season. Spurry and the white lupine are both annuals.

Bird's-Foot Trefoil (*Lotus corniculatus*) is a prostrate perennial, common on open grassy pastures and dry places. It is a leguminous plant,

BIRD'S-FOOT TREFOIL.

equally nutritious as clover, and is instantly eaten down whenever cattle have access to it. It is one of the commonly-cultivated "artificial grasses" of England, and is always recommended as worthy a place in all mixtures for permanent pastures, and especially for lawns, orchards, and shady places.

MEDICAGO LUPULINA.

Medicago lupulina is another leguminous plant, a fibrous-rooted perennial, very common in dry pastures, especially if of good loamy quality, where it forms, with other plants, a thick sward. The pods are short, black, twisted, and arrayed in oblong heads, as shown in the annexed engraving. It is not equal in nutritious qualities, perhaps, to red clover, but is valuable on dry, poor soils, where, however, it is apt to run out in a few years.

Lucerne (*Medicago sativa*).—This is a well-known plant, which has been more or less cultivated in this country for many years. It requires very rich land, and deep and thorough cultivation. It should be planted in rows, and hand-hoed or forked between, several times during the first and second years. It does not attain its maximum productiveness till the third year. On these accounts, it is not likely to be very generally introduced into a country where land is cheap and labor dear. In the neighborhood of large cities, however, it is a useful crop, especially for feeding to milch cows in summer. It can be cut three times a year, yielding a good crop each time, if the soil is sufficiently rich.

LUCERNE.

Vetch or Tare (*Vicia sativa*).—In England this is an exceedingly valuable plant, especially on heavy soils. It can be sown in the fall or in the spring—the latter generally yielding the heaviest crop, though the former is the earliest. Vetches are principally used as a green food for horses. An acre of *good* vetches, fed in the yard or stable, will keep more horses than six acres of the best pasturage. They succeed best in a wet season, and on this account are not likely to do well in this country, though we have seen them in Canada, and have been informed that they succeed well and are very useful. A good "smothering" crop of vetches, cut before they go to seed, are nearly as good to precede wheat as a summer-fallow. *Morton's Cyclopedia of Agriculture* says: "Sheep fatten faster upon this (green vetches) than on any other herbage, which occasions its constant use by ram-breeders. Horses improve more rapidly upon it than on clover or grasses. Horned cattle thrive surprisingly upon

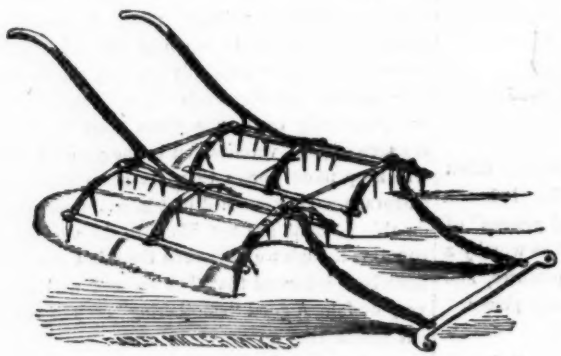
VETCH.

this fodder. Cows yield more butter from the tare than from any other provender; and pigs voraciously consume and prosper on it without farinaceous food." We can endorse this opinion from our own experience.

Mr. LAWES' experiments on vetches, extending over many years, prove that, like peas and beans and clover, vetches are an enriching rather than an impoverishing crop.

HARROWING POTATOES.

If potatoes are harrowed just before the shoots are coming through the ground, the after labor of hoeing is greatly reduced. The harrowing also breaks the crust of the soil, and the shoot can penetrate through the ground more readily. It has also another advantage: it removes a portion of the soil from above the plant, and thus the plant receives, during the first stages of its growth, when the soil is cold, the more direct influence of the sun. We present an engraving of a harrow used in England for this purpose. It is made in two parts, each being convex, and about two feet wide, connected by a bar across them, which admits of their



POTATO HARROW.

separation to a greater or smaller distance, so as to fit the width of drill; and it is drawn by one horse, which walks between the drills on which it operates.

WASHING HORSES' LEGS.—Sir GEORGE SEEPHENS says: "Whenever it is necessary to wash horses' legs, do it in the morning. To deluge the legs with water the moment the horse enters the yard, heated with exercise, is, to my mind, as unnatural and absurd as to jump into a shower-bath after playing for an hour at cricket. My plan is a rubbing down with straw and dry brush, and the next morning wash as clean as soap and water can make them. Pick and wash the soles as soon as the horse comes in."

UNRIPE CORN FOR SEED.

In the April number of the *Genesee Farmer* for last year, we alluded to the fact that the eyes from the extremity of the potato start earlier, and are said to produce earlier crops, than those from the root end. At all events, potato-growers for market, in some parts of England, have for many years adopted a practice based on this idea. They cut the potato into sets as shown in the annexed engraving. The sets nearest the extremity of the potato (*a*) produce the earliest crop, and are planted by themselves, in warm places, for this purpose. The sets at the root end (*d*) are planted for a late crop, and those in the middle of the potato (*b*, *c*,) are planted for an intermediate crop. The root end is usually thrown aside for the pigs.

We rather hesitatingly gave the following explanation of the fact at the time:

"It has been supposed that the reason why the eyes from the point of the potato are more easily excited into growth, is owing to their being more perfectly matured; but this is impossible, as they are the youngest eyes. It seems to us more likely that the cause lies in the fact that the extremity of the potato is not so ripe as the root end—that, in other words, they are not so perfectly *organized*, and are consequently less able to resist the decomposing influences of light, air, and moisture. 'That which thou sowest is not quickened unless it die.' The organized matter of a plant must be decomposed (or die) before it can reproduce itself. The youngest eyes, being less perfectly organized, would decay soonest and grow earlier and with greater vigor."

We recur again to the subject in order to adduce a very important fact (if it be a fact) confirming this view. In the *Transactions of the La Moille Farmers' Club*, published in the *Prairie Farmer*, President MCKEY said "that corn gathered before fully ripened, and hung up to dry in the house, germinated sooner, and was more forward through the season, than if left to ripen in the field."

WHEEL VS. SWING PLOWS.—A Scottish correspondent of the *London Agricultural Gazette* concludes, from a number of trials with the dynamometer on plows with and without wheels, that the wheel plows are of *one-third lighter draught than the swing plows.*

EXPERIMENT WITH POTATOES.

The *New York Observer* publishes the results of some experiments on potatoes by O. S. Cumings, Esq., of Springdale Farm, near Trenton Falls, N.Y. With the *Observer*, we regret that the experiments were on too small a scale, but the results are nevertheless interesting and worthy of record. They agree in the main with our own experiments. (See *Genesee Farmer* for April, 1858.)

Each experiment consisted of seven hills. Soil a gravelly loam, which had received a light dressing of rotten manure before plowing. Seed, one large whole potato in each hill. Planted June 5, 1858. Variety, *Rough Purple Chili*. The result was as follows:

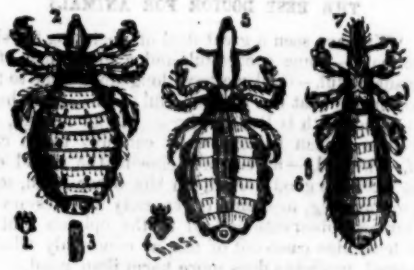
No. of Plot.	Description of Manure.	No. potatoes produced.	Weight of produce.		Remarks.
			lbs.	oz.	
1	No manure	27	7	8	1 rotten.
2	One table-spoonful of guano, under hill,	70	16		Sound.
3	Two table-spoonfuls bonedust on the potato in hill,	68	18		Sound.
4	One table-spoonful sulphate of ammonia in hill,	56	15		2 rotten.
5	A large handful of salt, lime, and ashes, in hill,	39	8	4	Sound.
6	Two table-spoonfuls of superphosphate of lime on potato in hill,	82	12		3 rotten.
7	A handful of hen-manure and muck (one part manure to two of muck) on potato in hill,	70	13	8	Sound.

Mr. Cumings also made some experiments on the same soil, with large and small potatoes as seed, cut and uncut. They were on the same space of land (seven hills). The following are the results:

No. 1.	Small potatoes, one in each hill,	37 potatoes—	4 lbs.	3 oz.;	sound.
No. 2.	Large potatoes, one in each hill,	53 "	12 "	12 "	"
No. 3.	Small potatoes, cut in two, two pieces in each hill,	44 "	7 "	8 "	
No. 4.	Large potatoes, cut in two, two pieces in each hill,	111 "	15 "	8 "	1 rotten.

Alpacas in Australia.—Charles Ledger, an English merchant who has been engaged in the Alpaca wool business for some years in Peru, has succeeded in importing 280 alpacas into Australia. The *Australian Gazette* says:

"The animals, at the departure of the mail, were quietly grazing near the city (Sydney), apparently well contented with the change of climate and scene which they have experienced."



LICE ON CATTLE, SWINE, AND CALVES.

The true ox-louse, (*Hæmatopinus eurysternus,*) fig. 1—2 the same magnified—is flat, and of a chestnut color, with an oval head, a dirty white body, with two rows of spots down the back. It has two short horns and six stout legs; the shanks toothed, the claws strong, tipped with black.—(3, one of the eggs or nits magnified.)

The swine-louse (*H. suis*), fig. 4—5, magnified—is of a rust color; the head is very long, the trunk broader; body dirty white. The eggs are oblong, of a yellowish-white, and sha-greened.

The calves'-louse (*H. vituli*), fig. 6—7, magnified—is a narrower species; of a chestnut color, excepting the body, which is dirty white, with two rows of oblong spots; the head is oval, but elongated, with short horns.

We have repeatedly published methods of destroying these troublesome parasites; but if the animals are kept clean and well fed, they will seldom be troubled.

Hungarian Grass.—This grass has attracted a large share of attention at the West, where it has supplied, to a great extent, the place of timothy grass, which it is difficult to grow on account of its winter-killing. It is nearly or quite identical with the common millet, *Setaria Germanica*, growing perhaps not quite as large-strawed and a trifle smaller seed, or about the same as millet on rather poor soil, sowed quite thick. That it is valuable as a forage plant, all know who have ever grown the millet to any extent; and to the farmers at the West it has been a great boon, from its quick and luxuriant growth. It is an annual, thriving best on warm, rich, sandy soil, and may safely be calculated to yield from two to three tons of cured hay which horses or cattle prefer to the best timothy. To be obtained in the best form for hay, it should be cut as soon as the seeds on the tops of the stalks begin to turn, and before the bulk of them are ripe. We commend it, either as Hungarian grass or millet, to the attention of farmers, not for making their fortunes, but as an excellent auxiliary as food for farm stock. This is the testimony of farmers in Monroe county, N. Y., who have grown it, and have no seed to sell, either as millet, Hungarian grass, or "Honey Blade grass."

THE BEST DOCTOR FOR ANIMALS.

"We have seen a great deal of doctoring for sick animals, — some successful, and a great deal of it unsuccessful, — and we have long since come to the conclusion that the most skillful physician we have ever met with is Doctor Nurse. If an animal, (as well as human being,) is not carefully taken care of, — nursed, — all the medicine in the world can do but little good. And, on the other hand, *with* good nursing, medicine is generally unnecessary.— Our own observations lead to the opinion that in at least nine cases out of ten, as commonly administered, medicine does more harm than good.

An eminent New York Physician said that taking medicine was always a choice of evils — that being poisons in nearly all instances, they necessarily did harm to the system, and were never to be employed unless there was a strong probability that they would benefit more than injure. This is not the rule adopted in doctoring horses, by most horse-jockies, and others having care of these animals, if we might judge from the way in which gunpowder, salts, red pepper, turpentine, whiskey, corrosive sublimate, and other violent remedies, are administered at hap-hazard, increasing in nearly all cases the violence of the decease. It may be laid down as a general rule, that it is much safer to give too little than too much medicine; and that none should be given unless we know distinctly how it is to operate, and what it is for.

Some years ago, a valuable horse caught cold, and was troubled with a cough so severe that he might be heard half a mile, and which appeared to be rapidly reducing his flesh. We had an abundance of prescriptions from neighbors of all kinds of frightful medicines, enough to have killed him had he been in perfect state of health. We concluded to discard all, and to place him under the attention of Dr. Nurse. Great care was taken never to work him to perspiration — he was blanketted whenever the weather was chilly — he was fed regularly and moderately on *succulent* food, all such food partaking of the character of expectorants, and favoring a free discharge from the lungs — and all his other wants were observed as well as we were able to, and promply supplied. In six weeks he was perfectly well. Had some nostrum been employed, it might have injured him and prevented recovery; or if it had not, Dr. Nurse might not have been called in; but if he had, and the medicine had not greatly retarded his recovery, and he had got well in six months, it would unquestionably have been regarded as an extraordinary cure. At another time, a valuable mare, eleven years old, was badly sweenied by hard work — the worst case of sweeney we ever met with. It was generally regarded as a hopeless case — but various remedies were proposed and offered, costing from $20 down to $3. We concluded that our friend Dr. Nurse should be again called to the exclusion of all these fellows, and the consequence is that with simple careful moderate treatment, the animal is well and the sweeney filled up.

The majority of sick horses get well; every owner tries some remedy; and that particular medicine that he happened to be using at the time, gets all the credit — although, as a general thing, it retarded more or less his recovery.

We must make one exception in the general rejection of medicines — there is one, which if given moderately, can scarcely ever injure, and may do much good. This is *powdered charcoal* — a powerful antiseptic, and absorbent of bad matter, while, unlike most other medicines, it does not irritate — a most important advantage. A clear illustration of this advantage recently occurred in the case of a fine calf five months old, which had become bloated by eating too many apples, blown down by a violent gale. Its sides became extended by wind to an almost incredible size; a solution of saleratus was poured down its throat repeatedly, and as often thrown out violently on account of its irritating action on the throat of the young animal. It continued for eighteen hours with little or no improvement, when a large tablespoonful of powdered charcoal mixed with half a pint of water was given. The dose was swallowed without any difficulty, and in four hours the calf appeared to be perfectly well. Charcoal may be given in nearly all cases of derangement of the digestion, whether with men or beasts, with great advantage. One-half to a teaspoonful is a full dose for a man, and as much for an animal as his food exceeds that of a man.

We do not mean to say that there are not other medicines that do not occasionally prove eminently useful; but unless they can be given understandingly, — with a full comprehension of their mode of action, and with an undoubted knowledge of the exact nature of the disease, — and their use sanctioned by very clear and distinct previous success, — it would be much safer to discard them. — *Country Gentleman.*

BREEDS OF CATTLE IN ENGLAND.

From statistics published in the last *Journal* of the *Royal Agricultural Society*, we learn that the cattle exhibited at the Metropolitan Market, in London, consisted of the following breeds:

Shorthorns	33.00	per cent.
Herefords	9.25	"
Devons	5.00	"
Longhorns	1.00	"
Crosses	16.00	"
Highlanders	2.00	"
Polled Scots	4.00	"
Ayrshire	0.25	"
Irish Crosses	8.00	"
Welsh runts	1.50	"
Irish	9.00	"
Bremen, Toning, Dutch and German	9.50	"
Spanish and Portugese	1.50	"
	100.00	"

"The above table shows that the Shorthorned breed of beasts now stands at the head of the list of stock, for what may be termed general consumption. They have gone on progressing at a wonderful rate since the commencement of the present century, and they are now to be found in almost every county in England, as well as in Ireland and Scotland. We may further observe that half-bred beasts, between the Scots and Short-horns, have considerably increased within the last twenty years. The changes in the various breeds in this period have been remarkable. Whilst the Shorthorns and crosses have increrased, the Herefords, Devons, Longhorns, and polled beasts have declined considerably. The same may be said of Welsh runts; but we find a great increase in Irish crosses, no doubt with the short-horned breed imported from this country."

JANUARY NUMBER OF THE GENESEE FARMER.

Messrs. Editors.—I send a few ideas suggested on reading the January number of the *Genesee Farmer*. Make what disposition you please of them; it will not be material with me.

Making Roads.—Where stone is not easy to be procured, brush is excellent to put into muddy roads. Place it thick across the road, and cover with dirt. It forms a drain for the water, prevents the wheels from going down any farther than the brush, and when covered a foot with dirt will last many years.

Keeping Turnips.—A correspondent in the *Prairie Farmer* says: "Put them into a barrel and cover with a sod."

Raising Pumpkins.—Your correspondent must allow me to differ with him on the propriety of raising corn and pumpkins. Corn likes hot weather, as is demonstrated by their raising larger crops in the Middle than in the Northern States. The pumpkin vines shade the ground, and thereby retard the growth, as well as absorbing the nourishment that the corn would otherwise get. They are in the way in working the corn. I believe more than the value of the pumpkins is substracted from the value of the corn crop. In this State, we raise them in great perfection on the prairie sod the first season after breaking. An acre of land cultivated entirely in pumpkins will yield an immense quantity; and I think this method preferable to planting among corn.

The crop is a valuable one—have made excellent beef with no other feed but pumpkins and hay. The pumpkins should be cut up and fed in a clean trough. Had two hogs, one of which I intended to fatten, and the other to keep through the winter. As soon as pumpkins were ripe enough to gather, I shut them apart. Fed one on corn all he could eat, with an occasional pumpkin for sauce, slops of the house, milk, &c. The other I fed entirely on pumpkins. I should have said at the commencement that they were both of an age, and size very nearly alike. In December I killed the one fed on corn, which weighed about 300 lbs; the other was as heavy, but not quite so fat. I then concluded to fat the last one, and fed him on corn and pumpkins all he would eat. In about a month he was very fat, and weighed nearly a hundred more than the first. This experiment convinced me that pumpkins were good feed for hogs, and that corn and pumpkins fed together were much better than corn alone.

The Best Mode of Raising Tobacco Plants.—Let them alone. I have used the weed twenty years with great injury to both body and mind.—Shall use it no more, except to kill insects.

Management of Bees.—The main cause of the loss of bees during the winter, is lack of ventilation in the top of the hives. They will endure any amount of cold, if kept dry.

Farm Book.—The satisfaction derived therefrom more than pays for the trouble.

Should the Suckers be Removed From Corn?—Our corn does not sucker. The most economical way to harvest corn is to husk it on the hill. Drive the wagon astride the middle of five rows, husk and throw into the wagon-box. It saves all the labor of handling the stalks, and the corn is much nicer. Turn in the cattle at any time during fall or winter, and they will feed the stalks down much closer than when fed in the yard, as is the ordinary practice.

Lima Beans.—I raise these beans with good success without poles. Let them grow as they will. Plant on the poorest soil we have on the prairies, without manure. S. W. ARNOLD.

Courtland, De Kalb Co., Ill., 2d Mo., 1859.

QUARTERLY MEMORANDA FROM "DOWN EAST."

Eds. Farmer:—To-day ushers in the month of March, 1859; and a beginning it is, with a vengeance—mercury down to zero, and the wind blowing a "regular norther," causing the snow to act very uncomfortable and restless. We feel to exclaim with the poet:

> "The stormy March has come at last,
> With winds, and clouds, and changing skies,"

etc., but then we comfort ourselves with the old saying, that if March

> "Comes in like a Lion,
> 'Twill go out like a Lamb."

We have experienced a cold winter, the thermometer at one time marking 28° below zero.—Sledding commenced the middle of November, and continued almost without interruption to the present, when we have two feet of snow.

The grass fields have had a good covering all winter, and can not fail to produce early feed if it continues this month—a "consummation devoutly to be wished," as five or six months feeding stock makes clean bays and scaffolds.

We consumed a greater quantity of hay this winter than in former years, owing to the increased amount of stock kept. This State exports annually considerable quantities of hay, but the farmers are beginning to understand that their land, although naturally strong, can not bear continual cropping without an adequate return, and, as a natural consequence, more attention is paid to stock raising and the dairy, whereby the land receives an equivalent for the stock taken from it. Apropos of *strong* land, it is told of a person who was looking over the lands of a farmer, (which land, by the way, was rather strong,) who was praising it by alluding to the cropping it would bear without manuring, winding up with the exclamation, "It is strong land—*very strong* land." "No doubt of it, no doubt of it," said the examiner. "It *must* be strong land to bear up such a confounded load of rocks."

Jack Frost laid an embargo on our harbors part of the winter. Some of them are free from ice at present.

The following is the market price of some products here at present:—Apples, fresh, $1,00 per bushel; do. dry, 8 and 10 cents per pound; Butter, 20 cents per pound; Barley, $1,00 per bushel; Corn, $1,00 per bushel; Hay, pressed, $10 and $12 per ton; do. loose, $15 per ton; Oats, 43 and 45 cents per bushel; Potatoes, 42 and 50 cents; Wheat, none in the market. GEO. E. BRACKETT.

Belfast, Me., March 1, 1859.

Gapes in Chickens.—Make a pill of equal parts soap, rhubarb, and assafoetida, and give once an hour till it is cured.

IMPROVING OUR HIGHWAYS.

The article on roads in the January number I like much. Years ago we tried small stones, putting those on top that would break easiest to the size and shape of a goose egg, taking special pains where the wheels run, but it was too rough. They would not pound as well as lime stone. We find we can gravel eight inches deep and draw a mile for one dollar per rod, and thus make a road A No. 1. We sometimes turnpike one year, and early the next summer put on from five to eight inches of gravel. We lay our roads well up, first making them as narrow and rounding as we can comfortably use; and allow no water to stand at the sides. The best road I ever saw is the one running through Weedport to Auburn—a blue hard gravel on top of plank. The company tried taking out plank and putting in gravel, but thought best to let the plank remain. Plank roads—say what you will of them—have given the country some idea of what a good road may do for us, and we are not contented now with a poor one.

If our experiment in plank roads induce the improvement I hope for, it will yet be better than money spent at the tavern—though what could induce us to show so much folly I can not tell.

HANNIBAL.

Chinese Sugar Cane.—The Chinese or African Sugar Cane can be raised in Canada West as easily as Indian Corn. Notwithstanding the unfavorable season last year, I raised a vigorous crop of the African Variety, from nine to twelve feet high. It was carefully housed with the intention of trying to make at least molasses, but the difficulty of getting a suitable pressing machine, unless at great expense, prevented me from testing its saccharine qualities. I shall raise a quantity this year with this view, hoping that a cheap and effective machine may be introduced by the fall, or that others will join me in purchasing one from your locality. As a forage plant I think it must prove a valuable acquisition. Mine was fed to cows in the stable, uncut, and not a particle could be found in the manager in a short time after being fed.

Plant early. It will bear considerable frost in the spring, but the late sown will suffer from slighest frost in the fall; being in full vigor. The sudden check prevents the stalk from curing and it mildews immediately.—R. W. S. *Woodstock, C. W.*

Cure for Murrain in Cattle.—Having been for many years a reader of your valuable paper, and having derived much useful information therefrom, I wish to ask you to *reprint* a recipe, for the benefit of your numerous readers who were unacquainted with its columns in 1841. The recipe I first found in the June number in the year 1841; and have since *tried it* and *know it* to be good. Give 1¼ ounce pearlash, (saleratus,) dissolved in two quarts of iron water (from blacksmith's troughs.) If not better in five hours, give one-half ounce more in one quart of water. The water should be warm. Give no drink but warm water for two days. Give warm mash to eat. To prevent murrain, give a small quantity—say a teaspoonful—saltpetre and sulphur occasionally.—J. H., *Clarence, N. Y.*

BUTTER-MAKING.

Our January number contained a prize essay on butter-making, and we now offer our readers a portion of one of the essays submitted, containing some details of a practice not common among American dairy-women, but which, to some extent, especially during winter, will be found very serviceable. It is as follows:

Strain the milk into tin vessels, and let it stand for twety-four hours; then set it on a moderately-heated stove until the milk heaves a little; after which, set it away for twenty-four hours more. Then skim off the cream into a common cream-crock, which makes the best kind of a churn. It would be well to keep the cream-crock in a warm place—say in the kitchen—not too closely covered. When you churn, take a potato-masher, or something similar, (which should be first dipped into boiling water and then into cold, to prevent the butter from sticking to it, also anything that is used in working the butter,) and turn the cream around with it until the butter comes. In warm weather, the time taken in churning is usually from two to five minutes; but in cold weather it takes longer, especially if the cream gets frozen, which it should not. In doing it thus, you not only save a deal of hard labor, but the milk will keep more than as long again by being scalded; besides, the cream is delicious on stewed fruits, pies, or as a substitute for butter. Just try it. The cream is fit for churning as soon as it is skimmed off, and the butter is much sweeter if made before the cream sours.

Morgantown, Wellington Co., C. W. E. C.

This method is nearly the same as that practiced in Devonshire, England, of which county our correspondent has been a resident. With them the milk is strained into tin or earthen pans holding ten to twelve quarts, and allowed to stand *twelve* hours. The pans are then heated until a thick scum rises to the surface, and until air-bubbles will appear in parting the scum. The milk is then cooled, the cream removed, and is ready for churning, which may be done in a few moments, as stated by our correspondent. Thus is made the celebrated *clouted cream* of Devonshire, well known all over England.

Every one knows how much cream adds to the good qualities of coffee, though not every housewife knows that when she gets a quart or two of milk it should be put in a tin pan and placed upon the stove until heated as beford described. Set this away until cool, and cream enough will be furnished for a family of half a dozen persons to use, in connection with the milk from which it was taken, scalded and used hot.

We have no doubt that for butter-making in winter, the method detailed by our correspondent would answer a good purpose; but for summer practice in large dairies, it would be too much labor for the additional benefit.

SPRING MANAGEMENT OF BEES.

Among the many prominent instinctive laws given to the bees by their Creator, we find that their love of liberty is so great that they had rather die of suffocation from the heat generated by themselves, than to submit to involuntary confinement. To confine them in a warm room, or in a hive out of doors, during weather which is suitable for them to be out, submits them to a very severe punishment, as the open air at such times is their greatest delight.

I have at one time fitted up, and at considerable expense tested thoroughly the practical working of keeping bees in houses according to the most approved theories, and during about eight years of continual experiments, by close observations I have arrived at these conclusions, viz:

Where a number of swarms of bees are collected together in a thoroughly enclosed room, made warm and close by being thoroughly protected from the surrounding cold, that the natural process of generating heat from the body of each bee constantly going on, causes the temperature of the room to be raised to the required heat for hatching, in advance of the same corresponding change in the seasons out of doors; and the result is, that too early in the season the queen is induced to deposit her eggs, the process of hatching them is accomplished, and the whole brood so hatched immediately starves to death, as the weather is not warm enough, nor the season forward enough, so that the working bees can get out, or if out, cannot procure the food which nature has intended to provide at a little later date, for their young. As a parrallel case the miller of the apple-tree worm lays her eggs in a branch on a twig in the latter part of summer. By a law of nature, they hatch out the following spring, just at a time when the tender leaves are putting out on the same limb that the worms occupy, and these leaves furnish them with their natural food; and nature has so ordained that these two processes shall go on hand in hand, one dependent on the other. Now, take the same limb containing the eggs, and hang it up in a warm room early in the season. The eggs will hatch out, but the leaves on the limb do *not* put forth, but have withered and dried up; consequently the worms must die, because no nourishment has been provided for them. And so it is exactly in the case of bees confined in rooms, in most cases. Artificial heat may hatch the eggs, but it can not at the same time produce the necessary change in vegetation to support them.

Look to your bees and hives immediately. See that they are not cracked or split by dampness collected on the inside during the past winter. If so, mend them by screwing, (not nailing) on cletes, &c. If any holes have been bored, to *ventilate* the hive, (which, by the way, is wrong,) close them all up, and render the hive as near air-tight as possible, by closing all openings except the usual passage-way left for the bees at the bottom of all hives. The bees will make corresponding repairs inside. If your hives are made of single inch boards, I would recommend thatching them with straw, about three inches thick, by beginning at the bottom of the hive and bending the ends over on the top, so that the hive will be completely enveloped in straw. Then, with a pair of shears, cut away the straw, so that it will be no obstruction to the bees in going in or out of the hive. I think no one who ounce tries thatching will omit it in future. The hive is now prepared for hatching and raising the young brood. Bees require about the same heat, (90°, or more,) and about the same time which is required to hatch a brood of chickens, and the heat also requires to be a steady heat; and the hive once warmed sufficiently by the bodily warmth of the bees, the young bees will hatch, and the straw on the outside prevents their being chilled or killed by sudden changes, or cold nights or days. This straw should be removed from the hive when apple-trees are in bloom.

Prepare yourselves with suitable hives for the new swarms; see that they are made in a workmanlike manner, and so constructed to meet the instinctive wants of the bee, as far as possible. The kind of hives which I have been led to consider the best, is made of two thicknesses of boards, with a chamber for boxes above. E. KIRBY.

East Henrietta, N. Y., March 1st, 1859.

Facilities for Growing Cattle at the West.—The facilities afforded for this business, by even the settled prairie States, have to be seen to be appreciated—thoroughly examined to be known. All the groves and waste lands are covered with grass, and much in extent of these will remain without fence for the next generation; so that the advantages to be derived from pasturage are to be had free of expense. Winter fodder costs but the securing of it, and sheds for the protection of cattle are made of waste wheat straw, now burned in large quantities; so that the obstacles in the way of growing cattle in this vicinity are very trifling. From my farm westward for many miles, Ill. C. R. R. and speculators' lands (which will not soon be sold) connect, affording range for a vast herd, while Rock Slough furnishes water. Upon these lands, thus far, wild hay as well as pasturage is to be had in abundance. Individuals wishing to enter the business, can do well with time and capital in Illinois.—W. H. Gardner, *near Amboy City, Ill.*

Feeding Horses.—I believe all that has been said in favor of cut straw and ground feed for horses, yet there may be many people who have more hay and roots than grain, as is the case with myself.

I desired my horses to winter on hay and carrots, and, notwithstanding they were inclined to a cough immediately after they were taken from the pasture, I commenced wetting their hay in advance of feeding. I would pitch down a quantity and sprinkle on water, then shake it up well, put in a close pile, and feed from it, and be sure that when I fed the last that was wet, I prepared more for future feeding. Thus far, with wet hay and carrots, I am satisfied that horses that are not being worked hard, may winter well, even with a cough to begin with. I have tried both cut straw and ground feed, and the hay and carrot feed. For freezing weather I prefer the latter.—*L. Beach, Marcellus.*

Corn should never follow buckwheat. Potatoes are the best crop to precede corn, grass the next, corn itself next, and, last of all, buckwheat.

THE GREAT BUSTARD.

The Bustard is the largest land bird that is a native of Europe. It was once much more common than it is now, but the increased cultivation of the country, and the extreme delicacy of its flesh, have greatly thinned the species, so that the time may come when it may be doubted whether so large a bird was ever had there. It is probable, long before this, that the Bustard would have been extirpated, but for its peculiar manner of feeding. It inhabits the open and extensive plain, where its food lies in abundance, and where every invader may be seen at a distance.

The Bustard, according to Plutarch, was found in Libya, in the environs of Alexandria, in Syria, in Greece, in Spain, in France, the plains of Poiton and Champagne. They are now and then seen in England, and the extensive downs of Salisbury Plain, in the heaths of Sussex and Cambridgeshire, the Dorsetshire uplands, and as far as East Lothian in Scotland. In those extensive plains where there is no woods to screen the sportsman, no hedges to creep along, the Bustards enjoy an indolent security. Their food is composed of the berries that grow among the heath, and the large earth worms that appear in great quantities on the downs before sunrise, in summer. They also eat green wheat, the tops of turnips, and other vegetables; and have even been known to devour frogs, mice, and young birds. It is in vain that the fowler creeps forward to approach them; they have always sentinels placed at proper eminences, which are ever on the watch, and warn the flock of the smallest appearance of danger. All, therefore, that is left for the sportsman, is the comfortless view of their distant security. He may wish, but they are in safety.

It sometimes happens that these birds, though they are seldom shot by the gun, are run down by greyhounds. As they are voracious and greedy. they often sacrifice their safety to their appetites, and feed themselves so very fat, that they are unable to fly without preparation. When the greyhound, therefore, comes within a certain distance, the Bustard runs off, flapping its wings and endeavoring to gather air under them to rise; in the meantime the enemy approaches nearer till it is too late for the bird even to think of obtaining safety by flight; for, just at the rise, there is always time lost, and of this the bird is sensible; it, therefore, continues on the foot until it is taken.

As there are few places where they can at once find proper food and security, so they generally continue near their old haunts, seldom wandering above twenty or thirty miles from home. As their food is replete with moistures, it enables them to live upon those dry plains where there are scarcely any springs of water, a long time without drinking. Besides this, nature has given the males an an admirable magazine for their security against thirst. This is a pouch, the entrance of which lies immediately under the tongue, and capable of holding near seven quarts of water. This is probably filled upon proper occasions, to supply the hen when sitting, or the young before they can fly. The Bustard makes use of its reservoir to defend itself against birds of prey; which it affects by ejecting the water with such violence as often to arrest the progress of its enemy.

The weight of this bird varies considerably.—Some have been found of not more than ten pounds, others have been found of twenty-seven, and even thirty. The female is not more than half the size of the males. The Bustard is distinguished from the Ostrich and Cassowary by its wings, which, although disproportioned to the size of its body, yet serve to elevate in the air, and enable it to fly, though with some difficulty; they are generally about four feet from tip to tip, one to the other.

The Bustard is not known in America. Besides the delicacy of their flesh, the quills were once valuable, as they made excellent pens, but they are still more valued by anglers, who use them for floats; for as they are spotted with black, the notion is that these black spots appear as flies to the fish, which they rather allure than drive away by their appearance. C. N. BEMENT.

Springside, March, 1859.

An Easy Way to Cultivate Potatoes.—Prepare the ground well; and if not a strong turf the ground may be furrowed very shallow. Drop the potatoes any desired distance apart you please, cover them with a plow, making a sharp ridge.—You will disturb some of the end hills by turning around; but with a little more seed and and a hoe that evil may be remedied. The potatoes will be covered rather deep; but some days after planting take a common log chain, hook each end of the chain around a good bunch of timber brush, and hitch your team to a centre link of the chain, putting a spreader into the chain in order to carry the front end of the brush in each furrow, letting the brushy parts lap over each other; lay a short board across, and you may ride at ease, and see your ground swept as clean as you could desire. After the potatoes have begun to break ground, repeat the same operation, and you will be pleased to see all the small weeds brushed out of the hills. The remainder must be done by hoe and cultivator.—L. Beach, *Romulus, N. Y.*

Without animals to use the oxygen, and return the carbon to the atmosphere, plants could not live. Without plants to use the carbon, and return the oxygen to the atmosphere, animals could not live.

HORTICULTURAL NOTES FOR THE MONTH.

If the weather continues as fine as it is at present (March 16,) nearly all the early garden crops will have been planted before this number reaches our readers. Early peas, onions, carrots, cabbages, cauliflowers, lettuce, radishes, celery, &c., will have been sown on the warmest soil in the garden. If not, they should be sown immediately, or at least as soon as the ground is in working condition, but not till then. If not already done, a few early potatoes should be planted immediately. By keeping them in a warm place for a few days before planting, they will start earlier. Peas, if possible, should be planted in a single row, as they then get more light and heat, and produce earlier and more abundantly. If this cannot be done, plant in rows four feet apart; or five feet, with a row of early cauliflowers or cabbage between them. Some English gardeners plant peas in hills from three to five feet apart, according to the variety, five or six peas to each hill. They are poled like beans. The amount of seed necessary depends on the variety; the early dwarf kinds require about 30 peas to each lineal foot; dwarf marrowfats, 24; tall marrowfats and all of similar habit, 12. The small sized peas should be planted 2½ inches deep; the large sized 3½ inches. Do not *tread them in*, especially if the soil is at all wet or heavy.—*Early Kent*, *Champion of England*, and *Knight's Dwarf Marrow*, sown at the same time, will ripen in succession. The *Champion of England* is a delicious pea, and very productive.

Lima Beans.—Plant on warm, dry soil, in hills four feet apart. The soil should be as rich as possible. Stick a pole about ten feet long in each hill, and plant five or six beans around it. This is better than poling when the beans are up, as the operation is apt to disturb the plants. Three plants in a hill are sufficient. If cold, wet weather comes, and the plants die, plant again immediately.

String Beans are sown in drills like peas. They should have a warm soil and a sunny situation. One pint of beans will plant a row fifty feet long. If more than one row is needed, make the rows two feet deep.

Onions and Carrots should be sown in rows one foot apart. The former delight in rather a heavy loam; the latter in loose, deep, rich soil. The *Early Short-horn* is the best carrot for table use. It may be eaten when quite young, and should consequently be sown thick, and thinned out as wanted.

Parsneps and Beets.—Sow in rows two feet apart, and thin out ten to twelve inches in the rows.

Cabbage and Cauliflowers.—Sow on a warm border or gentle hot-bed. Sow thick, so as to have plenty for the fly and enough for yourself, and thin out and transplant if too thick. They are always better for transplanting before finally setting out. The same remarks apply to celery and tomatoes.

Raspberry Canes, if they have been covered, should be taken out and tied to stakes. The canes should be shortened back, leaving them from two to four feet long, according to strength.

Asparagus Beds should be slightly forked over and manured.

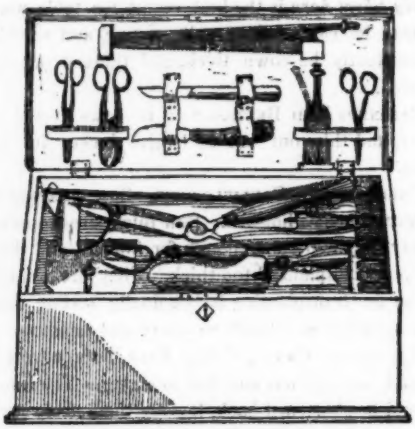
The Hot-Bed will require careful attention this month. If too cold, some fresh, warm horse-dung should be placed round it. The cucumber vines should be pegged down, cutting out all but the strong and fruitful vines. These should be trained so as to cover all the space—say from twelve to fifteen inches apart. As soon as the fruit is set, and begins to swell, the vines should be pinched off two leaves above the fruit. By the time the first cucumbers are ready to cut, the vines will have pushed out again and formed new fruit, which will grow rapidly as soon as the other is removed. Unless the vine is very strong, not more than one cucumber should be left on at a time.

The celery, tomatoes, egg-plants, &c., sown in boxes in the hot-bed, should be removed to a cold frame, or if the weather is very warm, to a sunny border. In transplanting, care should be taken to disturb the roots as little as possible. They should have a gentle watering, if necessary, with water of a temperature of above 60°. They should be set out in rows four or five inches apart, and remain here till the ground is ready for their final setting out.

To insure a good vegetable garden, the soil can not be too rich. Rapid growth is desirable. It is better to manure in the fall; but if this has been neglected, the ground should now be spaded and heavily manured with rich, well-rotted dung, and be careful to *thoroughly incorparate* it with the soil.

USEFUL TOOLS.

As the gardener and horticulturist must soon begin active operations, we offer some illustrations and brief notes of tools appropriate to the season.



A HORTICULTURAL TOOL-CHEST

contains most of the small implements used in pruning, grafting, budding, transplanting, etc., and which, if kept near the workman, saves time and ensures successful operations.

A BILL-HOOK

is useful for cutting up bushes, sprouts, briars, etc., and lopping off branches that can not be so well reached by the saw, which should always be the main implement in pruning. For trimming hedges

TRIMMING SHEARS.

and occasionally pruning thorny bushes, use is made of a pair of stout shears with long handles;

PRUNING SCISSORS.

BORDER KNIFE.

while for dressing rose and other small bushes, especially for ladies' use, we have smaller scissors adapted to that purpose. For cutting true and smooth the grassy borders of lawns, walks, etc., use is made of a border knife, to which is affixed a handle similar to that of a hoe. When the trunks of trees become rough and mossy, they may be rendered smooth and ornamental by using the

TREE SCRAPER

followed by washing with strong soap suds or weak lye, freeing them from insects, and making them more healthy.

TRANSACTIONS OF THE MASSACHUSETTS HORTICULTURAL SOCIETY FOR 1858.

This volume, issued at the close of each year, always contains a fund of valuable and reliable horticultural information. The present volume, for which we are indebted to Dr. Eben Wight, is especially replete with interesting matter, and we propose to make a few extracts from it for the benefit of our readers who have not access to it. The Report of the Committee on Flowers, which is unusually attractive, we shall refer to in a future number, and for the present pass over it and briefly notice a few points in the Report of the Committee on Fruits:

"Strawberries.—The first strawberries of the season, grown in the open air, were a box of *Early Virginias*, shown on the 12th of June, the exhibitor stating that he picked ripe berries from his vines on the 6th; and the second was a box of a new seedling, called *Page's Seedling*, exhibited on June 19th. *Page's Seedling* is a handsome strawberry, of good size, conical form, and dark color. It is good flavored, but seemed rather soft in the flesh. As it is so early a variety, it may prove desirable. * * * * Among the newer varieties may be mentioned *Leopold*, a very large crimson strawberry, of a coxcomb shape; *Marquis La Tour Mauburg*, large, dark colored; *Trollope's Victoria*, also large and fine, but of a color rather too pale; River's seedling *Eliza*, a large, coxcomb-shaped, crimson berry; *Blake's Incomparable*, a crimson; and *Adair*, a good sized scarlet variety.

"As no opportunity was afforded the Committee to test, in a satisfactory manner, the different varieties, the expression of any opinion with respect to their flavor is purposely withheld, as such, not carefully and deliberately formed, might give an erroneous impression. It may not be amiss, however, to say, that scarcely any of the foreign varieties of the strawberry have continued, for any long period, to give satisfactory results. They seem more tender than the American varieties—more liable to be burnt by the sun in summer, and injured by the cold in winter; besides that, they are all, or nearly all, staminate or perfect in their flowers; and unless more care and attention is paid than can usually be bestowed on their cultivation,

they become unproductive. The great size of their berries, their beauty and flavor, may render some of the foreign varieties desirable for the garden of the amateur; but it is believed that they will in no case be found adapted to the purposes of those who desire to produce this fruit on an extended scale; and while such results as are now had can be obtained from the cultivation of American varieties, it is hardly worth while to resort to foreign sources for any additional supply.

"Of the long-established and well-known favorite sorts of this fruit, no remarks are necessary, unless it be to say that the *Jenny Lind*, having now been subjected to the test of a somewhat extended and general cultivation, seems to justify the encomiums that were bestowed on it at its first appearance. It was then said that it seemed to be an improvement on the *Virginia Scarlet*, to which it bore a resemblance, and was well adapted to be a fertilizer to some of the pistillate sorts—a belief now confirmed by subsequent experience."

"Currants.—For a long time the *Red* and *White Dutch* were the only currants cultivated, and seedlings raised from them, with a view to improvement, did not seem essentially to vary in character from their progenitors. Some years since, *May's Victoria* was produced, and it was at that time expected that it would prove to be a decided improvement. It has not, however, answered the expectations that were formed; for, except that the bunches are much longer, it does not exhibit any superiority. Subsequently, the *Red* and *White Gondoin* and *Fertile de Paillau* were originated, and these, particularly the two first, proved to be an improvement on the old red and white varieties. Within the last year or two, several new varieties of foreign origin have been introduced, that, it now seems probable, will, from their superiority, supersede the old sorts. Among such are the *Fertile d' Angers*, *La Caucase*, *La Versaillaise*, *Macrocarpa*, the *Champagne*, *Hatif de Bertin*, and *Blanc Transparente*, though this last may prove to be the same as the *White Grape*. Several of these varieties have been exhibited the past year in considerable quantities, and, by their beauty and the great size of both bunches and berries, attracted much attention. Some berries of the *Versaillaise* were found, on measuring them, to be two inches in circumference. Several of these new currants are fully equal in size to the *Cherry*, a variety too acid for the dessert, and at the same time are sweeter and richer than the old kinds. Among those that may be safely, it is believed, recommended, are the three first named in the above list."

"Blackberries.—The exhibition of blackberries, the past year, has been confined to the *Dorchester* and the *Lawton* or *New Rochelle*. Indeed, these are the only ones at present known that are worthy of cultivation. The show of this fruit the past year was very fine. In size and beauty, the berries of both varieties that were exhibited were probably never surpassed. Twenty-five berries of the *Lawton* weighed six and one-sixteenth ounces; while twenty-five berries of the *Dorchester* weighed five and eleven-sixteenths ounces. Still larger berries of the *Dorchester* were, however, subsequently exhibited, though not weighed. Cultivators in this vicinity esteem the *Dorchester* decidedly superior to the *Lawton:* it is much sweeter, and therefore more generally acceptable; besides, that while the *Dorchester*, upon being gathered, retains its deep, lustrous black color, the *Lawton* soon becomes of a deep reddish brown or bronze color, and therefore less saleable. Notwithstanding this, the *Lawton*, when thoroughly ripe, is, though rather acid, a rich, high-flavored berry, and it is thought has hardly had justice done to it. It bears to the *Dorchester* a relation somewhat similar to that borne by the fruit of the common trailing bramble to the highbush blackberry. Both are valuable varieties, and leave scarcely anything further to be desired in this species of fruit."

"Grapes.—During the last few years, no fruit, unless it be the pear, has excited so much interest as the grape; and confident expectation has been indulged that from seedlings, now being extensively raised, some new varieties would be produced, that, free from the defects of the native grape, should be of fine quality, hardy, and sufficiently early to attain maturity under ordinary circumstances in the open air in Massachusetts. Although this expectation has not as yet been fully realized, still, this is no cause for discouragement, especially in view of what has already been obtained in the *Diana* and *Delaware*, both a near approach to the requirements of cultivators. The great desideratum seems to be a grape of good size, suited to the dessert, that shall perfectly ripen its fruit during our short summer, that which some varieties of those not yet fully tested may prove to be. There are already good grapes, if they could be produced perfectly ripe, as the *Isabella*, *Catawba*, &c. Indeed, both these sorts, when thoroughly ripened, leave, so far as quality is concerned, but little more to be desired; but it is to be questioned, whether even the first, certainly not the last, ever, unless under the most exceptional circumstances, thoroughly ripens its fruit in the open air in New England. Should this opinion seem rash or ill-founded, let but a comparison be made between these varieties, when grown at the South, or here in a grape-house, perfectly ripe, and the ripest and best specimens that can be obtained grown in the open air, and the inferiority of the latter will be at once manifest. And this same remark, it is believed, is also applicable to the *Concord*, a somewhat earlier variety than the *Isabella*, but which it is thought will prove to be better adapted to a more southern latitude than to this, where it originated. The *Hartford Prolific* has lately received warm commendations from some sources, and seems to answer this requirement of earliness; ripe grapes, of this sort, grown in Hartford, having been tested this year on the 14th September; but its earliness is its chief recommendation; it is tolerably sweet, but is not wholly free from the peculiar flavor, as well as the hard pulp of the native varieties, and therefore hardly suited to the table. Besides that there is this objection to it: the berries, when ripe, fall from the vine at a slight touch."

"Of all the grapes recently introduced, there is none, that for size, beauty, and flavor, is superior to the *Union Village*, if there is any that equal it, unless one, to be presently noticed, shall hereafter prove an exception. The only misgiving that is felt with respect to this variety, is that it may not be sufficiently early to arrive at perfect maturity when raised in the open air. It is, however, about

eight days earlier than the *Isabella*. This grape has only been fruited in this vicinity by Mr. E. A. BRACKETT, of Winchester, if, indeed, any one here but Mr. BRACKETT, and those who have received vines from him, have the true variety, as vines received from Ohio, two years since, with every guarantee to their correctness that could be desired, have not proved to be so."

"With the information upon this subject at present possessed, if called upon to recommend grapes, that, taking all circumstances into the account, may be considered as best adapted to out-door cultivation in Massachusetts, but little hesitation would be felt in naming the *Diana* and the *Delaware*. The *Diana* is too well known to call for any remarks concerning it, and with the *Delaware* cultivators are somewhat acquainted, as, although of recent introduction here, various opportunities for testing its qualities have been afforded. The *Delaware* has been received from Delaware, Ohio, but is probably a native of one of the Middle States. It is, although until recently but little known, not a new grape; for, if statements of in every way a reliable character can be depended on, the *Delaware* was, more than thirty years ago, in the possession of Mr. PREVOST, of New Jersey. Mr. CAMPBELL, of Ohio, writes that he this year 'picked ripe specimens from a fair southern exposure on the 15th of August.'"

"It has been said above, that it was believed that the *Union Village* had no superior unless with one exception. The exception intended is a new seedling, raised from it by Mr. BRACKETT. It fruited this year for the first time, with berries larger than those of the *Union Village*, that were pronounced by those who tasted them to be of superior flavor. It is believed to be a grape of great promise."

"APPLES.—At some of the weekly exhibitions there was a fine display of apples; among them, in October, the following that had not been before noticed: the *Boxford*, a large yellow apple, nearly covered with stripes and blotches of red, remarkably tender and very pleasant flavor; and the *Polliard*, probably a local name. This last was more beautiful than the *Maiden's Blush*, which it resembled in its color, with a very white flesh of a very agreeable subacid flavor. Both these varieties made a very favorable impression.

"At the annual exhibition, the display of apples was very fine, and there were some varieties of recent origin or of late introduction; as the *Ohio Nonpareil*, a yellow apple, with red in the sun, of medium size, now, it is supposed, raised for the first time in this vicinity. This apple is held in high estimation in Ohio, but, so far as can be judged from a single trial, not too much so. It has been pronounced by some, whose opinions are usually deemed authority, to be identical with the *Cogswell*, but it is believed that this opinion has been expressed under some misapprehension with respect to the varieties, and that they are not the same, the two varieties differing, it is said, in both wood and leaf. The *John's Sweet*, a New Hampshire apple of good size, mostly covered with stripes and blotches of red, a profuse bearer; and the *Ledge*, now fruited for the first time in this vicinity, were also upon the tables. The *Ledge*, when it was first exhibited some ten years since from Portsmouth, attracted much observation, and was commended by the then Fruit Committee as promising to be of great value as a late-keeping sweet variety. Grafts then obtained seem to be coming into bearing, and it is to be hoped that it will justify the encomiums that have been bestowed on it.—*Smith's Cider* was also exhibited for the first time. The specimens were of medium size, yellow color, with blotches and stripes of red. This is a Pennsylvania apple, and is extensively cultivated in the Middle States and at the West. It may be that it is peculiarly valuable as a cider apple, but if, by that affix, it is intended to designate a fruit valuable to manufacture into cider only, it is certainly a misnomer, for it is a fine table fruit. It is a most abundant bearer and of vigorous growth.

"These four last-named varieties were exhibited by Dr. WIGHT, who has paid great attention to the cultivation of the apple, and are strongly recommended by him as well worthy the notice of growers of this fruit. Specimens of the *Washington*, which excited so much interest at its first exhibition three years since, were also shown by him, and also by Messrs. HUBBARD, FOSTER and EVERS, and the *Northern Spy* and *Bottle Greening* from the garden of the late Capt. LOVETT."

"PEARS.—There have been some new pears and some of recent introduction exhibited the past year. Of such, a portion at least seem to call for more than this passing notice. Among them the following may be specified:"

* * * * * * * *

"*Alexandrina*, a new pear, introduced by Messrs HOVEY, resembling somewhat in form and appearance the *Fondante de Noel*, a very handsome fruit of medium size, melting, juicy, sweet, and pleasant, though of not very decided flavor. Ripe in Oct.

"*Madam Eliza*, though it has before fruited, was exhibited, it is believed, this year for the first time by Col. WILDER. It is a large pear, of pyriform shape, green color, melting and juicy, with somewhat of the rose flavor.

"*Neuf Maison*, from Mr. WALKER. There has been some confusion about this variety, it having, so far as is known, proved heretofore, upon fruiting, to be synonymous with some other. This was a smooth, green pear, of medium size, with a large, straight stem, and an open calyx in a shoal basin, presumed to be correct. It was not tasted, but Mr. W. says it is of good quality.

"*Beurré Antoinette*, now first exhibited, is of medium size, with a yellowish-green skin, long stem, flesh greenish-white, tender, juicy, and of very pleasant flavor. Ripe middle of October.

"*Bergamotte Gaudry*, a very pleasant, melting, juicy fruit, of a slight bergamotte flavor, has some stony concretions about the seeds; of medium size; color yellow, but nearly covered with stripes and blotches of russet.

"*Doyenné du Comice*, not new, but worthy of notice, as it proves to be a very melting, juicy, fine pear, that is believed to be worthy of an extended cultivation. It is peculiarly well adapted to the quince stock.

"*Beurré Mauxion*, of medium size, short stout stem, of a russet color, thin skin, melting, juicy, of a spirited pleasant flavor. Season early in October.

"*Souvenir d'Esperin* is a long pear, above medium size, with a thin yellow skin nearly covered

with russet; flesh melting, juicy, of a pleasant subacid flavor, but rather lacks sweetness and richness.

"At one of the weekly exhibitions of the Society, that of October 23, a dish of the *Beurré Bachelier* was exhibited by Mr. H. CURTIS. These specimens were large, perfectly fair and smooth, and very handsome, and are thought deserving of mention, because the fruit of this variety is generally knotted or warty, as showing what may be expected of it when in skillful hands or a suitable situation.

"*De Tongres.*—As considerable interest has been excited respecting this pear, it may not be amiss to state, as a matter of record, that, though not exhibited, it has fruited the past year and been seen by some of the Committee. The specimens seen were of good size, but not equal in that respect, or in beauty, to the colored representations of it; they were of a spirited, brisk flavor, somewhat like that of the *Beurré d'Aremberg*."

CULTIVATION OF THE GRAPE.—No. 3.

TREATMENT OF THE VINES THE SECOND YEAR.

PRESUMING the young vines to have been carefully tended during the first summer's growth, they will at the end of the season have produced strong canes three to six feet in length, and will present somewhat the appearance of fig. 10. The winter is the time to prune, and in mild seasons the month of February will be the best period; but if very severe weather, it had better be deferred until it becomes a little milder. But when put off too late, the vines are apt to bleed a great deal; and although the bleeding may not be so injurious as many persons suppose, it can not do any good, and may as well be avoided as much as possible. In pruning this year, the vines must be cut down to the lowest good, round, plump bud, within two to four inches of the ground, as represented in fig. 11. Set the edge of the knife at the back of the bud, and at one inch above it, and take it off at one clean cut.

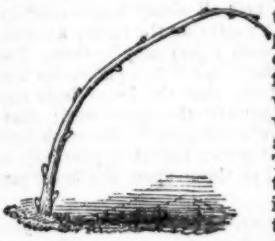


FIG. 10.

FIG. 11.

If the vineyard has been planted with cuttings, two at a stake, wherever both have grown one will have to be taken away—either cut away with a knife, or carefully dug away without injury to the one left. Always leave the best vine; and those which are taken up will do to fill vacancies where both may have died. Many persons perform this operation in the month of October; but as we sometimes have very severe winters, I think it had better be deferred till spring, to avoid winter heaving of the newly-planted vines. It should, however, be performed as early in the spring as the soil and weather will admit—when the ground is in good working order; but not in very wet or cold, windy or frosty weather.

As soon as the weeds begin to grow, the soil will want stirring, either with the cultivator or hoe, so as to kill the weeds, and stir the soil around the plants. This operation should be repeated as soon as the weeds begin to show themselves again. When the weather begins to set in hot and dry, if a little mulching of littery manure, or short grass, leaves, or anything that will keep the ground partially shaded and moist, be applied around the young vine, it will be of great service.

The vines may be allowed to grow at will this summer, without stakes, and trained to one cane. During the summer, small lateral shoots will be produced from the axil of each large leaf on the main cane, which must be cut back to one leaf when it has grown two or three leaves in length. The object of this is to concentrate the sap in the main cane, instead of its being wasted in the laterals, that it may be as strong and well-ripened as possible.

FIG. 12.

Fig. 12 shows a section of a main cane, and the the small line on the lateral where it is to be cut off.

TREATMENT OF THE VINES THE THIRD YEAR.

In February of the third year, the vines are again pruned down to the lowest good bud, within four or six inches of the ground, as represented in fig. 13. If the vineyard has been planted with rooted plants, a few grapes may be had this year, but not more than two or three bunches to a vine; but if it has been made with cuttings, no fruit may be allowed until the fourth year.

FIG. 13.

The vines must now be supplied with stakes, and preparations made for whatever mode of training is to be adopted. Some planters train their vines to one stake, some to two, others to three, and others again to four. Where only one stake is used—which, perhaps, is the best, where vines are planted only four feet apart each way—the stake is set immediately at the head of the vine, and on the north side of it, as in fig. 14. Where two stakes are used, they are set out as represented in fig. 15. Where the ground is strong, and the

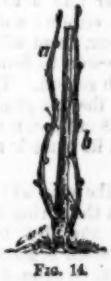


FIG. 14.

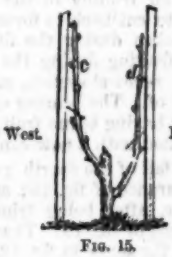


FIG. 15.

vines planted five feet apart, or four by five, the stakes should be set one foot from the vine, east and west. They will then cast less shade early in

the morning than when set north and south. Where three stakes are used, they are set as represented in fig. 16; where four are used, as in fig. 17.

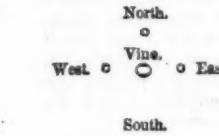


Fig. 16.

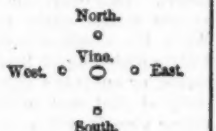


Fig. 17.

Where one stake is used, only two canes must be allowed to grow this (the third) summer, which will, at the end of the season, look like fig. 14; if two stakes be adopted, like fig. 15.

The summer pruning will consist in rubbing out all superfluous shoots, pinching in the laterals, as in fig. 12, and keeping the canes carefully tied to the stakes. It is a good practice to pinch in the leading cane when it has grown four feet in length, or when it begins to turn brown at the bottom. This throws back the sap into the lower buds, and strengthens and assists their swelling and ripening for bearing fruit the next year. Keep the vineyard nicely cultivated and all clear of weeds, and avoid all unnecessary walking and trampling about.

Treatment of the vines the fourth year.

This season the vines will be in good bearing condition, and must be pruned accordingly. It is best, however, not to train them to bows until the fifth year, as they would be likely to show more fruit than the vine could sustain without exhausting it too much for the year following. In February of this season, cane *a*, in fig. 14, is cut back to the small line drawn across it, leaving it about four or five buds, or twelve to fifteen inches, in length. From the buds on this spur, the fruit-bearing shoots will be produced. Cane *b* is cut down to the lowest good bud; the small line drawn across it indicates the place where it is to be cut.

During the present summer, while the spur *a* is bearing fruit, a spur from cane *b* is trained up for fruiting in the year following—say in 1859, for fruiting in 1860. In fig. 15, the canes *c* and *d* are cut down to three or four buds, or eight or ten inches, in length, that the two together may not bear much more fruit this season than the longer one in fig. 14.

During this summer, two canes are taken up from each spur, in fig. 15, and allowed to bear fruit. The cane starting from the upper bud is to form the bow for fruiting in the fifth season; and the other is to cut back to form a spur, from which a cane is taken during the fifth season to form the bow for fruiting during the sixth season. This is called the renewal system, and is the one generally approved of. The bearing cane is cut down annually after having borne fruit, and its place is annually supplied with a new cane.

In the fall of the fourth year, the vine will have the appearance of fig. 18; and in the spring of the fifth year, after being trimmed and tied to the stakes, that of fig. 19. The two small branches, *a*, *a*, below the spurs in fig. 18, must be pruned back to where the line indicates; but a new shoot must be carefully preserved from year to year, in case of accident to either of the other canes. The bow should be from five to eight buds in length, according to the strength of the vine. Great care and nice judgment are required in bending the bows.

Fig. 18.

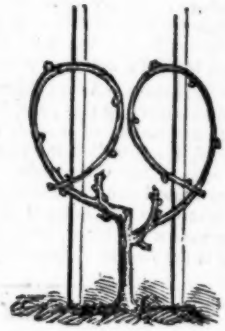


Fig. 19.

They should be made in the mornings, and in cloudy, moist weather; for when the wood is very dry it is more brittle. The bows should be as round as possible, and all sharp bends carefully avoided, to prevent fracturing the canes, as, without this caution, much injury may be done. The object of making the bows is to equalize the flow of sap in all the buds, that the lower buds may start with equal vigor with the upper ones; otherwise, if the canes were left straight, the whole force of the sap would be driven into the upper buds, to the great detriment of those upon the lower part of the cane.

Summer Treatment.—The summer treatment of the vines will consist in carefully securing the young shoots when they are about a foot in length. The junction of the young and old wood is so very weak just at this time, that, if not secured, any sudden storm may cause great injury, by breaking them off. Wherever more than one shoot starts from one bud, all superfluous shoots must be rubbed off, leaving but one shoot, and that the best. When the shoots are all carefully secured, they must be pinched back to two leaves above the highest bunch of grapes; and all the small laterals produced upon these shoots, as well as upon the future cane, for fruiting next year, must be pinched in to one leaf; and this future fruiting cane may be stopped, by pinching out its leader, when it has grown four feet in length, or when it begins to turn brown at the bottom.

This summer pinching, if judiciously performed, is of great benefit to the vines. It throws back the sap into the young and swelling fruit and the lower part of the vine, instead of its being expended in weak and straggling branches. There is still foliage enough left to shade the fruit, and to elaborate the sap round about the bunches, keep the vine in health, and thoroughly ripen its wood. My practice is to leave two leaves above the bunch, where the leaves are large and healthy; and three or four where small and weak: for I have always observed that one good, broad, and healthy leaf, is worth more in ripening up a cluster of grapes than half a dozen small and weakly ones.

SETTING THE STAKES.—The stakes should be of some good, lasting wood, such as oak, ash, hickory, cedar, chestnut, &c. They should be about two inches thick, and five feet six inches long, to be driven eighteen inches into the ground, which will leave four feet out. The best way of setting them, is to punch a hole with a round, sharp-pointed crowbar, of about the thickness of the stake; set the stake in the hole, and drive it home with a mallet. Be careful that they are set in their exact places, and upright, that they may come in perfectly straight rows every way.

Every spring the stakes must be examined, to see that they are sound, and not heaved out of place by the winter's freezing. If any are found to be rotten, they must be replaced by new ones, or reversed, the sound end being put in the ground. In France, about Fontainebleau, the vines are pruned in the fall, and all the stakes are pulled up and carried under cover, or piled in little stacks in the vineyard, and re-set in the spring. They stick a few stakes in the ground, something in the form of a sawbuck, and then pile a number of stakes on in the position that a stick of wood is placed to be sawed; but I forget how to describe it exactly. This must preserve them much longer than if they were left in the ground altogether. In France, the tying is usually done with a small white rush; in this country, with a willow twig, which is twisted rather than tied. The small yellow willow is the best, and it is well to have a small patch of them growing for the use of every vineyard. Fifty plants, when three years old, will produce ties enough for an acre of vines. They should be planted in wet soil, 4 feet apart each way, and headed down every spring.

WHAT VARIETIES OF GRAPES TO PLANT.

The *Catawba* and *Isabella* are so generally well known, that it is useless to make any remarks of them. But of some of the newest kinds which have been well tried and brought into notice within the last ten years, it may be well to give a brief description, for the benefit of those who are not yet familiar with these as yet scarce, but most choice and luscious of our hardy grapes.

With your leave, Messrs. Editors, as *my* list must have a beginning, as well as any other list, and as the *Delaware* is universally conceded to be at the head of every native collection, I shall begin with that variety.

The *Delaware* has been mostly disseminated by Mr. THOMSON, of Delaware, Ohio; hence its name. I will give a memorandum which I made while eating some beautiful *Delawares* sent us by Mr. THOMSON, early last September. "The size is small to medium, one bunch shouldered. Bunch compact, three and a half inches long, one and three-fourths diameter; berry, one-half to five-eighths of an inch diameter; form round; quality *very best*, tasting like fine flavored sugar, and dissolving completely in the mouth, leaving a luscious taste on the palate; seeds, one to two; color, dark amber or chocolate; time of ripening first of September, have been gathered ripe as early as fifteenth of August, 1858. One of the *hardiest* vines we have.

LOGAN.—The best *earliest* grape, having been picked ripe tenth of August, 1858. Bunch, size and shape of a medium *Isabella*; color, black; quality very good; quite as hardy as the *Delaware*.

DIANA.—Second in quality to but one, and that the *Delaware*. Perfectly hardy, strong and free grower, and one of the freest and earliest bearers that I know of. Begins to ripen a few scattering berries the middle of September, which are sweet as soon as colored; keeps improving till middle of October, if allowed to hang so late. A fully ripe *Diana* is perfectly luscious and cloying, leaving the lips, after eating a bunch, slightly sticky, as though we had been tasting syrup. It is destined to be as good a wine grape for New York as the *Catawba* for Ohio. Hangs well on the vine, and also on the bunch after being gathered, and is a good keeper; color, when fully ripe, dark amber.

CONCORD—When well grown, the largest and finest looking, both in bunch and berry; hardiest black grape we have. Time of ripening, a fortnight earlier than the *Isabella*, and more hardy than that variety; quality, sweet and very good, with a little native aroma. Is being extensively planted, both for fruit and wine, and is growing in favor every year.

NORTHERN MUSCADINE.—Very hardy; moderate grower; good bearer, and is principally valuable for its early ripening quality. Time of ripening, middle of September, and has a good deal of that peculiar native aroma, of which some people are very fond, and others are not. Must be gathered as soon as ripe, or the berries are liable to fall from the bunch; color, dark red.

TO KALON.—The *To Kalon* is one of the finest grapes. When well ripened it is perfectly sweet and luscious, with a very agreeable aroma. Flesh very delicate and tender, the seeds leaving it as freely as from any foreign variety. Berries an inch in diameter; bunch large; color, dark amber, inclining to black; quite hardy; strong grower with peculiarly beautiful foliage, and moderate bearer.

UNION VILLAGE.—The *Union Village* is everywhere spoken of as being a splendid grape, as large as the *Black Hamburgh*. The fruit I have not yet seen, but the vine is a fine grower.

REBECCA.—This is a beautiful *white* grape.—Bunch very compact; berry slightly oval, with a delicate bloom; flesh delicate, sweet and juicy; very good. The vine is a delicate grower the first year, but afterwards moderately strong.

GOLDEN CLINTON.—This a seedling from the common *Clinton*; perfectly hardy; free grower; and a great bearer. Ripe fifteenth of September; skin thin; flesh very sweet and juicy, with no pulp. A nice white grape.

KING.—Very hardy; free grower; an abundant bearer; the fruit of one vine having sold in one year for $15, at the rate of 12½ cents per pound. Bunch and berry small to medium; berry, round; color, black; skin rather thick, which makes it a good keeper. I have a bunch by me now, (16th of March,) which was cut from the vine the 2d of last September, and is pretty fair raisins; flesh of some consistence; good; time of ripening, last week in August. Its best qualities are, it is extremely early, hardy, and a great bearer.

Rochester, N. Y., March, 1859. JOSIAH SALTER.

THOUGH rapid growth is desirable in succulent vegetables, this is not the case with most flowering shrubs, which form bushy, and therefore handsomer plants, when grown slowly.

GRAFTING THE GRAPE VINE.

How does Mr. SALTER *retard* his grape scions for grafting after the leaf has started, as recommended by him in the March number of the *Farmer*?

It could be done in an ice-house, probably. In fact, I do not see how else. Or does he graft without retarding the scions?

Mr. SAMUEL MILLER, of Lebanon, Pa., recommends in the February number of the *Cincinatus*, grafting the vine at the earliest possible period that the ground can be worked in the spring, and says he has been successful that way, but never in a single instance in the other.

Mr. WARREN, a successful vine-grower and wine-maker of York, Livingston Co., New York, now practices early grafting, as he informs me, although he formerly recommended late grafting and retarding the scions for that purpose.

Several years ago, desiring to substitute other sorts for some large *Clinton* vines, I attempted to graft them, unsuccessfully, late in the spring; but want of skill and experience were sufficient causes of failure in my case.

Many farmers have abundance of wild vines on their premises, which, if they could be successfully grafted with superior sorts, would greatly facilitate the growth of scions as it would seem, and Mr. MILLER asserts that grape grafts have sometimes grown twenty feet the first season, and are sure to *bear a crop the next*. His method is to cut off the vine *some two inches* below the ground, split and graft in the usual way, one bud or two to a graft, *use no cement*, but draw the earth around up to the bud of the graft; then cover with leaves or rubbish to prevent the ground from freezing and lifting it out."

Mr. WARREN'S method, (kindly furnished me by him for insertion in your paper,) is slightly different, although he says "it is very simple, and if done in season you will not lose one in twenty. Very early in the spring," he says, "as soon as the frost is out of the ground, before the sap in the vine begins to circulate, I dig the earth away from the body of the vine *as low as the roots will allow*, saw off and split the stub as I would in grafting an apple, insert the cutting like a wedge, have the bark match the same as with any thing else. *I pare the cavity before inserting the scion.* You want to make a very nice joint. For a scion I use a cutting of last year's growth, with three or four buds. After the scion or scions are inserted, I bring the earth *firmly* around the graft, leaving the top bud of the scion just at the surface, so that if this graft does not grow the cutting will."

Mr. MILLER'S reputation as a horticulturist seems to give weight to his opinion, fortified as it is by Mr. WARREN'S. Having tried it again very rudely this spring, I have endeavored to induce some of my neighbors to to do so also; but one or two parties are collecting all the spare grape-cuttings in this vincinity so closely to plant, that it is difficult to get many scions to experiment with.

In grafting old grape-vines, where the stock is large below the surface, why would it not be preferable to graft several portions of the upper stock, and then bury them to the proper depth, and treat it otherwise as in root grafting? It seems to me it would, and a portion of my experiment is in that form.

About the use of wax or cement, which Mr. MILLER especially eschews, but which Mr. SALTER recommends, I should be glad to glad to hear Mr. WARREN'S views through your columns, and as to grafting the stock above ground and then burying it.

Scottsville, N. Y., March 10, 1859. D.

MESSRS. EDITORS:—In your March number I notice a valuable article on the "culture of the grape" from Mr. Salter; and under the head of grafting he advises the operator to make use of "waxed cloth, basswood bark or worsted yarn." If he will use copper wire, drawn tight and twisted with the pinchers, he will probably never make use of any other course of tieing. The best way, however, is to go to the woods and select pieces of the roots of the wild grape vine, saw them in pieces of six or eight inches in length, and after grafting tie as above recommended, and plant in a spent hot-bed, or some other good location. Any number of roots will start *above* the tie, and grow several feet the first year, when, on removal, the original root may be sawed off just below the wire. I have seen a single graft throw out roots from nine to thirteen feet the first season. E. W.

Dedham, Mass., 1859.

CUCUMBERS, MELONS, &C.

EDS. GENESEE FARMER.—My garden is arranged for the plow, cultivator, horse-hoe, &c.; everything drilled to run north and south. My method for raising cucumbers, melons, squashes, &c., is as follows: Plant the seeds in inverted sward and pack close together in the hot-bed, water every evening until the plants are four or five inches high. Then I choose a rich and sunny part of the garden, and plow out furrows a foot deep, and five to eight feet apart, as the habits of vines may require. Next draw in *un*fermented manure from the barn-yard —wheeled from the horse and cow stable during the preceeding winter—and fill the furrows quite full; then cover with the plow and level the ridge with the rake, leaving the soil six inches deep over the manure. I then take the sward from the hot-bed and cut into pieces, leaving three or four plants in each piece, and place them four feet apart along the centre of each ridge, for cucumbers, lima beans and bush squash; six feet for melons, and eight for marrows and squashes. Each hill is then covered with a box made of half-inch lumber for the sides, and a pane of glass or oiled cotton laid over the top. This is the safest remedy for the melon bug, and ensures an early and rapid growth of the plant. They require ventilation during the day, and the boxes must be removed entirely when the weather will permit. Tepid water is used frequently for a week or two, unless there are warm showers; then the glass is removed to admit the rain when necessary. I use the one-horse cultivator once or twice a week to keep down weeds and pulverize the soil between the ridges, and the hand hoe to loosen the soil around the plants. When the vines are vigorous I thin them frequently, and cut the tops of the fastest runners so as to equalize them, and induce early bearing. With the above treatment, last year, I raised cucumbers very early

in immense quantities. During the drouth, persons were complaining of their vines turning yellow, and bearing no fruit, although they watered them every evening. I *never* watered mine after the first two weeks from transplanting, and the vines never turned yellow till "Jack Frost" blew his withering breath over them. I had two rows, eight rods longs, from which I cut four bushels per week for several weeks, after which I gathered upwards of five thousand gherkins for pickling. The vines were quite full when the frost came and destroyed them. Nearly all writers are in favor of well-rotted manure for cucumbers and melons; but I have succeeded best with unfermented manure, used as described above. R. W. S.

Woodstock, C. W.

RUST ON APPLES.

At the last meeting of the British Pomological Society, J. G. Graham, Esq., read a paper giving the result of microscopic examinations of the discolored spots on apples. As the disease is quite prevalent in this country, the following extract from Mr. G.'s paper will be read with interest.

"On my first examination of the Apples you sent me, consisting of *Margil*, *Summer Nonpareil*, *Winter Nonpareil*, *Spanish Pearmain*, *Byson Wood*, and *Golden Drop* — all affected in the same manner with indented discolored spots — I was of opinion that the injury was caused by the presence of the mycelium of some mildew, which was not fully developed, and the rind of the fruit in too sound and tough a state to admit the fructifying stems of the mildew to penetrate through it. In order to ascertain this point, I adopted the same method which I applied when I first observed Tomatoes to be spotted like diseased Potatoes — viz., to thrust my finger nail through the skin, and thus allow the mildew, if it were there, to come out. — As I anticipated, in twenty-four hours the same species as that which was destroying the Potato (*Botrytis infestans*,) was visible on that part of the Tomato in full fructification.

"With regard to the Apples, the process was slower; and, as they were very dry, no mildew appeared until I put them in a damp place, soon after which two species sprung up — viz., *Mucor mucedo*, and *Aspergillus glaucus*, both very common moulds, of which I give you figures.

1. Mucor mucedo. *a.* Its spores.
2. Aspergillus glaucus. *b.* Its spores.
3. Mycelium of the mildews.

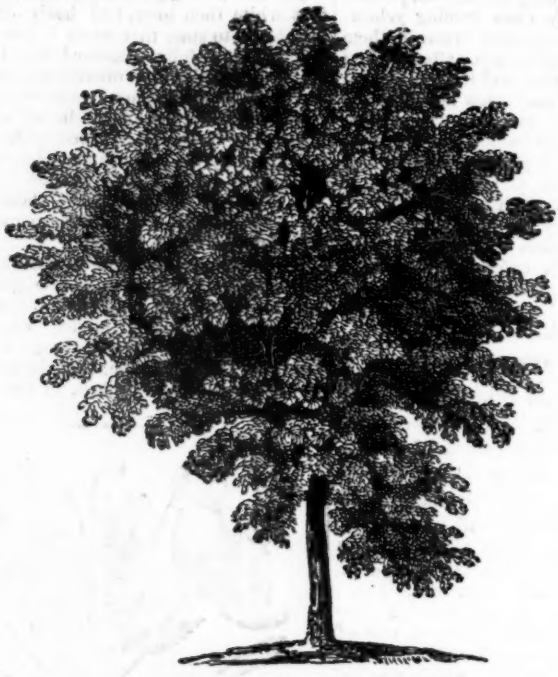
The first is of a gelatinous color; the latter is at first white then grey, and lastly dirty green. I ought also to state that when I first received the Apples, I carefully examined the tissue beneath the spots, under the microscope, and found the *mycelium* of the mildew traversing the cells in all directions; and, as is usual in all such cases, the parts thus infested had become brown, being in fact killed by it; some suppose by feeding on and exhausting their proper juices. I am also of opinion, that the threads of these mildews are very short-lived, and, dying amongst the cells, communicate decay to them.

"I should also mention, that at the time I made the incision in the *spots*, I also picked out small portions of the Apples where there were no spots; and on these parts no mildew whatever has appeared up to the present time. I can, therefore, but draw the conclusion, that the spots are caused by the mycelium, or spawn, of the mildew above mentioned.

IMPATIENS JERDONIÆ.

The Balsams, to which the present species belongs, affect shady, damp localities, and the decayed mould of large forests in both hemispheres; they are annual and perennial plants, with cylindrical stalks and branches, smooth, frequently swollen at their articulations, and filled with a very abundant watery juice; the leaves are alternate or opposite, nearly always dentated, and unprovided with leaf scales.

The common Balsam, introduced into Europe at the beginning of the sixteenth century, has served as a type of this family.



THE BLACK WALNUT — JUGLANS NIGRA.

Like the Tropeolæ (Capucines,) which resemble them, the Balsams present us with a remarkable variety in the color of their flowers, and the species under consideration exhibits this, in a high degree, in a mixture more curious than harmonious of green, yellow, and red.

The *Impatiens Jerdoniæ* is a native of the Neilgherry Hills; its stalks, which are carneous, of a deep violet brown color, and of the size of one's little finger, and very smooth, are generally provided with joints, which render them very fragile; the edges of its leaves, which are oval, thin, and of a bright green hue, are furnished with teeth, terminating in a sort of brown or violet colored gland; the flowers spring from the summit of short, axillary peduncles, and are supported by long, straight pedicles, of a beautiful carmine red color, the tops of which are lost in the bases of the calycine leaflets. In short, the original character of the flower of the *Impatiens Jerdoniæ*, and its profuse crop of flowers, make it desirable, and class it in our greenhouses with the *Impatiens platypetala*, *Hookeriana*, etc. Like the latter, and the *Imp. glanduligera*, *Royleana*, *fulva*, etc., which so greatly contribute to the beauty of groups planted in the shade, it requires the same care in cultivation.—*J. Decaisne in Revue Horticole, translated for the Horticulturist.*

A CORRESPONDENT says:—I have observed that when I prune apple trees in the summer, suckers seldom start from the wound; but when in spring, more or less suckers generally grow. The month of July I think is the proper time to prune; wounds then will soon heal over.

THE BLACK WALNUT TREE.

THERE are few more beautiful ornamental and useful trees than the Black Walnut (*Juglans nigra*). Well does Dr. LINDLEY call it the "*noble* Black American Walnut." It is better appreciated in Europe than in this its native country. On the banks and islands of the Ohio river, MICHAUX says he has often seen trees three or four feet in diameter, and sixty or seventy feet in height; and that it is not rare to find them six or seven feet in diameter. "When it stands isolated," he adds, "its branches, extending themselves horizontally to a great distance, spread into a spacious head, which gives it a very majestic appearance." DOWNING well observes: "The Black Walnut has strong claims upon the Landscape Gardener, as it is one of the grandest and most massive trees which he can employ." It is admirably adapted to extensive lawns, where there is no want of room for the attainment of its full size and fair proportions. Its rapid growth and umbrageous foliage also recommend it for wide public streets and avenues.

Of the fruit of the Black Walnut, and of the value of the wood, we need say nothing. The tree begins to bear when from eight to ten years old, and age increases its fertility. In New York, the fruit is not as large or as fine flavored as in Kentucky or Ohio; but even here it is highly esteemed. The tree is easily propagated, and should be more extensively planted.

Ladies' Department.

ORIGINAL DOMESTIC RECEIPTS.

[Written for the Genesee Farmer by various Correspondents.]

Rhubarb Tarts.—Peel and slice the rhubarb, sweeten to taste, and fix as a gooseberry tart. They are very delicious.

Custard Pudding.—Two spoonfuls of flour, six eggs, one pint of cream, a little sugar, one nutmeg. Boil half an hour.

Boiled Pudding.—One quart of milk, nine eggs, seven spoonfuls of flour, a little salt. Put in in a bag and boil three-quarters of an hour.

Potato Pudding.—Two pounds of potatoes, boiled and sifted, three-fourths of a pound of sugar, one-half pint of cream, seven eggs and nutmegs.

To Preserve Eggs.—Set them away in a dry cellar, standing on their ends, and turn the other end up, once a week. They will keep a year fresh.

Sunderland Pudding.—Six eggs, one pint of cream, a little salt, four table-spoons of flour, and nutmeg. Bake one hour, and eat with sweet sauce

To Keep Hams Nice for Summer Use.—Tie them securely in paper, cover closely with ashes. This keeps them sweet, and protects from all insects.

Making Honey.—Take ten lbs. of sugar, dissolved in four pounds of water, two pounds of honey. When cooling, stir in ten drops of peppermint.

To Brown Coffee.—Coffee should be browned gradually, and only to a *light* chestnut brown, so that when it is ground it will be lively and fly around the sides of the cup.

Rice Pudding.—Quarter of a pound of rice, one quart of milk. Stir well while boiling. When nearly cold, add one-quarter pound of butter, same of sugar, six eggs, spice to taste. Bake one hour.

Mock Apple Pie.—One teaspoonful of tartaric acid, one cup of sugar, one cup of bread crumbs, one egg, one pint water, and nutmeg or any other spice to suit the taste. This will make three pies.

Baked Wheat Pudding.—Beat well three eggs, add one tea-cup of sugar, two cups of sour cream, flour to make a stiff batter, one tea-spoon saleratus, a little salt. Bake in a quick oven. Eat with sugar and cream.

Orange Tart.—Squeeze two oranges and boil the rind tender, add half a tea-cup of sugar, and the juice and pulp of the fruit, an ounce of butter, beat to a paste. Line a shallow dish with light puff crust, and lay the paste of orange in it.

An Excellent Liniment.—Take the whites of two eggs, beaten to a froth, a wineglass of vinegar, a wineglass spirits of turpentine, and a wineglass of alcohol, beating it all the time. This liniment must be put together in the order mentioned above, or it will not be thoroughly incorporated. We find this very superior in all cases of sprains, bruises, &c., on man or beast.

Hair Oil.—Half a pint beef marrow, one-half ounce bee's wax, and a few drops of Vanilla, or other perfumery to suit.

Vinegar Pie.—Take a gill of cider or vinegar, one quart of water, a tea-cup of molasses, or sugar enough to make it sweet, stir in half a dozen spoonfuls of flour, put it on the fire and let it boil. Bake with two crusts, or put the top crust on in strips if it is liked better.

Indian Cakes.—Six well beaten eggs, one quart of milk, warmed, a small lump of butter, a tea-spoon of salt, one of soda, two table-spoonfuls of sugar, one pint and one-half Indian meal. Bake in buttered tins about two inches thick. Better than sponge cake for tea.

Connecticut Doughnuts.—One quart of milk, one pint of melted lard, one pint of yeast, one and three-quarters pounds of sugar, five eggs, one nutmeg, one tea-spoonful of saleratus, one table-spoonful of salt. When wet, knead together and set in a warm place to rise.

Spruce Beer.—For three gallons, take one quart of molasses, twenty drops oil of spruce, fifteen drops oil of sasafrass, fill the pail with hot water, mix them well together, let it stand till blood warm, then add a pint of yeast, let it remain ten or twelve hours, then bottle it. In three hours it will be fit for use.

Curds and Whey.—Infuse a piece of rennet in a little boiling water, as for making cheese; let it stand an hour or two; then put a table-spoonful to three pints of new milk warmed. Cover with a cloth, and leave until the curd is thick. Press out and use the whey, or sweeten and use both whey and curd. This makes a very nice desert for dinner.

Lemon Pies.—Beat with the yolk of four eggs, two table-spoonsful of melted butter, four of white sugar, the juice and grated rind of two lemons. Put into a rich paste and bake. Then beat the whites to a froth, adding two table-spoonfuls of grated sugar. Spread on the pies when done, put them in the oven and bake again for three minutes. The above is for two pies.

Boiled Custard.—Flavor one quart of very rich milk, with a Vanilla bean or Lemon, and sweeten well with sugar; boil it in an iron kettle. Beat well the yolks of four eggs, if the milk is very rich; if not, use five eggs. When the milk boils, pour it upon the eggs, stirring them all the time; then put it again upon the fire, until it thickens, stir it and be very careful not to let it boil. Turn it into a pitcher until nearly cold, then pour into custard cups or glasses.

Parsnep Wine.—To each gallon of water add four pounds of parneps, washed and peeled; boil till tender; drain, but do not bruise them, for no after remedy will make the wine clear; to each gallon of the liquor add 3 pounds of loaf sugar, and one-half ounce crude tarter, and when it has cooled to the temperature of 75°, put in a little new yeast; let it stand four days in a tub, in a warm room; then turn it, and bung up when the fermentation has ceased. March and October are the best seasons for making it. It should remain twelve months in casks before it is bottled.

New Advertisements this Month.

Burrall's Corn Sheller—Burrall, Snyder & Co., Geneva, N. Y.
Illinois Lands—John S. Hayward, Hillsboro', Ill.
Cauliflower Seed, &c.—Rural Emp. Club, Macedon Centre, N.Y.
Hungarian Grass Seed— " " " " " "
Virginia Farms—Cornelius Guard, Dowdalle, Va.
Apple-Pie Melon Seed—C. Van Rapalye, Morrisania, N. Y.
Grape Vines—C. P. Bissell & Salter, Rochester, N. Y.
Short Horn Herd at auction—Samuel T. Taber, Mineola, N. Y.
To Farmers & Lumber Dealers—G. W. Fisher, Rochester, N.Y.
Brighton Nurseries—T. B. Yale & Co., Rochester, N. Y.
Vegetable Seeds—J. M. Thorburn & Co., New York.
Horse Powers, &c.—G. Westinghouse & Co., Schenectady, N.Y.
Tricks of Horse Dealers—Dinsmore & Co., New York.
Batavia Nursery—A. Loomis, Batavia, N. Y.
Durham Bull for sale—O. S. Cumings, Trenton Falls, N. Y.
The Sweet Potato—O. S. Murray & Son, Twenty Miles Stand, O.
Japan Pie-Melon—J. J. Wyche, Henderson, N. C.
Local Agents Wanted—E. C. Frost, Havana, N. Y.
Hardy Native Evergreens—John W. Adams, Portland, Me.
Prince Albert Potatoes—D. Norton, Jr., Pittstown, N. Y.
Attorney and Counsellor at Law—John Dorr, Scottsville, N. Y.
Poland Potatoes—P. Sutton, Ransom, Pa.
Hooker's Strawberry—H. E. Hooker & Co., Rochester, N. Y.

OUR APRIL PREMIUMS.—Our friends will recollect that the time for competion for our April Premiums terminates on the 15th of this month. Send in all the names you possibly can before that date. Many will take prizes who do not expect them. The names of successful competitors will be published in the May number, and the money immediately paid. (See February number, page 71.)

OUR MARKET REPORTS.—We would call particular attention to our Market Reports. They are prepared with great care expressly for the *Genesee Farmer*, by a gentleman peculiarly qualified for the task—a gentleman of great intelligence and experience, and who, not being engaged in any business, has no interests to subserve but those of Truth and the Agricultural Community.

ADVERTISEMENTS.—Our advertising columns are again crowded this month. We desire to advertise *everything* of interest to farmers and horticulturists, and will admit nothing else. Our space is so limited that we must again request our friends to make their advertisements as *brief as possible.*

THE RURAL ANNUAL.—We have already printed two editions of the *Rural Annual* and *Horticulural Directory* for 1859. We are entirely out, and there has been a few days delay in supplying orders, but we are working off another edition, and all orders will now be promptly filled. The work is sent by mail, prepaid, to any address, on receipt of 25 cents in postage stamps.

Any of our agents who have got up a club of eight subscribers for the *Genesee Farmer*, can have *eight* copies of the *Rural Annual* for $1, sent prepaid by mail to any address. The subscribers need not all be at one post office. We send wherever the members of the club desire.

ACKNOWLEDGEMENTS.—We are indebted to Dr. R. T. UNDERHILL, of Croton Point, N. Y., for samples of pure Isabella and Catawba grape wine. Also to JAMES J. H. GREGORY, of Marblehead, Mass., for a couple of the justly celebrated Hubbard Squashes. It is undoubtedly the best variety we have. Also to CHARLES H. OLIPHANT, of Great Salt-Lake City, Utah Territory, for cuttings of apples, currants, &c. The currants are said to be very large and of good quality. They are grown from seed gathered from the wild currants growing in the canons of the Rocky Mountains.

RAISING POTATOES UNDER STRAW.—G. G. SHIPMAN, of Pike Co., Ill., writes us that he has tried the method of raising potatoes under straw, recommended in the *Genesee Farmer*, with great success. In six successive years his least crop was 270 bushels per acre, and the greatest 640 bushels per acre! He plants the potatoes in rows two feet apart, and one foot in the rows. Then covers the ground all over with straw six inches deep. This keeps the land cool, and in a warm climate, like Southern Illinois, is very beneficial.

FIVE HUNDRED DOLLARS PREMIUM FOR THE BEST FARM IN MASSACHUSETTS.—The Massachusetts Society for Promoting Agriculture, offers a premium of $500 for the best conducted farm in Massachusetts, of not less than 40 acres, taking into consideration the mode of cultivation, farm buildings, breeding, selection, and management of stock. Farms devoted to market gardening are not admitted to competition. Those who compete must pay an entrance fee of $10.

The Farmer's best Friends.

BY A. HOLLOWAY, MT. BRYDGES, C. W.

Destroy not the birds;
They 're the farmer's best friends;—
For the little they spoil,
They make ample amends.

Some fruit they will eat;
But grudge it them not:
For the good that they do
Should not be forgot.

They keep down the insects,
Whose rapid increase
Would injure our harvests
Till harvests would cease.

With their songs they amuse
Our wearisome hours,
And their presence enlivens
The shadiest bowers.

Then forgive their slight faults;
They make ample amends;
And do not forget
They 're the farmer's best friends.

Inquiries and Answers.

TOP DRESSING FOR GRASS-LAND.—(S. M.) Any well-rotted manure or compost will be found beneficial. We have seen coal-ashes, applied in the fall, produce a good effect—causing the grass to start earlier in the spring. There are some recorded experiments where unleached wood ashes have greatly increased the crop of hay. They have, however, a tendency to favor the growth of clover and other leguminous plants, rather than timothy. The best top-dressing is undoubtedly Peruvian guano. Sow 200 lbs. per acre, *as early as possible.* If sown late, and dry weather ensues, it may do little good.

APPLES.—Please publish in your paper what twelve kinds of Apples you consider the very best.—M. HOOPES, *Colmansville, Pa.*

This it would be very difficult to do to suit any extensive range of country; our own experience enables us only to speak of this vicinity; and for other localities we depend on the decisions of the various pomological and horticultural societies. For this neighborhood, we should consider the following twelve among the most valuable for orchards:

Summer—Golden Sweet, Red Astrachan, Early Harvest. *Autumn*—Fall Pippin, Jersey Sweet, Gravenstein, Duchess of Oldenburgh. *Winter*—Baldwin, Rhode Island Greening, Talman Sweet, Roxbury Russset, King of Tompkin's County.

The catalogue of fruits for general cultivation, adopted by the American Pomological Society, is published in the *Rural Annual* for 1859.

The *Smokehouse, Smith's Cider, Fornwalder, or Faldwalder*, are spoken of by good authorities in different parts of Pennsylvania, as among the most valuable sorts in cultivation.

In a report last year from THOMAS M. HARVEY, of Jennersville, Chester Co., Pa., to the American Pomological Society, the following sorts are recommended for a collection of one hundred trees of twelve sorts:

Early Harvest, 2; Jeffries, 3; Rhode Island Greening, 10; Roman Stem, 10; Townsend, 4; Holland Pippin, 4; Baldwin, 10; Lady, 10; Summer Rose, 2; Smokehouse, 20; American Golden Russet, 10; Golden Russet of Mass., 10.

In an orchard of a thousand trees for marketing, he marks: Smokehouse, 500; Smith's Cider, 100; Fornwalder or Faldwalder, 100; Lady, 100; Golden Russet of Massachusetts, 100; American Summer Pearmain, 25; Maiden's Blush, 25; Townsend, 25; Early Red Streak, 25.

CANKER WORM.—(H. R.) The insect you describe is undoubtedly the canker-worm. Last year it was unusually destructive to apple orchards in this vicinity. It rises out of the ground in the spring soon after the frost is out. The females have no wings, and climb slowly up the trunks of the trees; there they deposit their eggs in the forks of branches, and among the young twigs. They hatch the last of May, and the worms commence eating the foliage. If numerous, they will destroy all the leaves in a very few days, leaving the orchard as though it had been scorched by fire. The common mode of protecting apple trees from the canker-worm is to begirt the trunks with five or six inches wide of canvass thickly smeared with tar. It should be done immediately.

GRASSES AND CLOVERS.—(M. P. B.) Clovers, and what are commonly called "artificial grasses," are not, strictly speaking, *grasses*, and have, in fact, no kind of resemblance to grasses proper. The latter are, in all cases, plants with narrow, simple leaves, having a flat-blade, with numerous fine parallel veins, and a long sheath at the base, which represents the leaf-stalk, and through which the stem seems to pass. Plants wanting these peculiarities are not grasses.

HORSE POWERS.—(A. MCGILLIVRAY.) The horse powers manufactured by G. Westinghouse, of Schenectady, N. Y., we believe are in every way excellent. We are not prepared to say which is the best Horse-Power, Emery's or Wheeler, Melick & Co.'s. They are both good, and we believe, give very general satisfaction.

"CONDITION POWDERS."—(JOHN G. RAIN.) The best condition powder we have ever given horses, was a compound of equal weights of sulphur, antimony, salt-petre, and powdered liquorice root. They were used by one of the most successful veterinary surgeons in England. Give a table-spoonful in meal or shorts every other day. Be careful that the horses do not take cold. We have given this compound to horses troubled with the heaves, with, we thought, decided advantage.

GROWING WHEAT WITHOUT MANURE.—(G. B. DEARDORF.) We will endeavor to comply with your request for information in regard to Mr. SMITH's method of growing wheat at Lois Weedon, in some future number. We published an article on the subject in the *Genesee Farmer* for 1858.

TO KILL ANTS.—(R. S. R.) Mix equal parts of moistened loaf sugar and arsenic, and drop it on pieces of glass near their runs.

INFORMATION WANTED.—I wish to make some inquiries through your paper to be answered by your readers:

Sheep.—What is the most profitable breed for wool growers? Who has them and at what price? Who has good Saxons, and will speak of their merits? Of Merinos, which is the best kind? Of Spanish Merinos? At what age should ewes breed; and with good care how long will they live and breed well? How many ewes will a good, strong, healthy buck serve, say during six weeks in the fall, without injury to himself or his stock? What is the best way to manage that business and get the most use of a buck? What is the best average of 100 sheep, Spanish Merinos or Saxons, to the fleece? What is a good average for full-blood Spanish Merino or Saxon, with first-rate feed and care?

Cattle.—Are not short-horned Durhams as a breed tender and liable to degenerate? Is there not a good deal of humbug in pampering up these short-horns for fairs and exhibitions, with the pretence that these animals will breed anything like themselves? Will not the same expense, care, feed, judicious eye and selection of our common cattle bring as much profit to the country as what is doing in short-horns? I have always been favorable to these cattle, but prefer the truth to preconceived ideas, if those ideas be erroneous, and I still think that by the right selection, and with great care in buying, they are a splendid breed. But as matters are going, and in the hands of common people, are they the best breed? What of the Devonshires? Are they not pre-eminently hardy and likely to come out right and sure every time? I have always liked this breed, and the inclination of my mind is to like them better than ever. At what age should heifers be allowed to breed to create a first-rate herd? Bulls? For common people without much experience and opportunity of selection, is it not the best general rule to breed from comparatively large cows, from comparatively small, low, compact, hardy, active bulls, with good keep and care for the cows? Are GUINON's rules for the selection of milkers valuable and easily practicable? If so, please give the substance of them, as we can not easily get the book here in extreme Western Iowa. When a cow has difficulty in cleaning, what is the very best thing known to give her? Is there any particular feed or fare which is known or thought to induce this difficulty? At what length of time, after calving, do cows come in season? If they do not go to bull, then what are the succeeding periods? And what is the best feed for wintering calves?

Is there any horse in the world equal to the old blood-horse, the best thorough-bred four mile racers of England and America, to produce long-lived horses of active stride and power? At what age ought mares to breed to make it best for them and colt, that is if you wanted to produce the best possible horses in the long run? What is the best feeds for colts the first winter?

In bitter cold weather in the winter is it any advantage to temper cold water with a little which is warm for stock, especially young animals?

What is the most convenient arrangement for out-door buildings, say corn-barn, grain-barn, stock-barn or sheds,

hog-pen, well, &c., with reference to economy in time in doing the work of feeding, watering and caring for animals.

Whose is the best book on bees? What or whose is the best bee-hive?—J. S., *Onawa, Monona Co., Iowa.*

Hog Disease in Ohio.—Having been a reader of your valuable paper for several years, I now take the liberty of asking you for a preventive and cure, if you know any, or the name of the disease. I had forty hogs in the fall to keep over, and I took very good care of them, feeding them on corn in the ear, and giving them an excellent, warm, dry bed, and they are in excellent order—any of them fat enough to kill for use. About five or six weeks since one died, and in a short time another, and so on, and I then observed when feeding there was one that would not eat. I turned it by itself, but it would take nothing, but stood with its mouth a little open, and its heart seemed to beat so hard that it made it all shake, even as far as the flank. It kept on as I have described, but still getting worse, for about two days, lying all the time unless I drove it up; and the last time I raised it and drove it round a little, it laid down and made a few struggles, and in about three minutes it was dead. I have lost thirteen with the same disease, and they seem to be infecting more rapidly, as there was one died last night, and I see two more sick to-day. The symptoms of them are all alike. They generally die in forty-eight hours from the time they refuse to eat. I fear I shall lose all the rest, unless a remedy can be found.—A. L. Sherlock, *Berlin, Holmes Co., Ohio.*

Punctures on Raspberry Canes.—Noticing, last summer, for the first time, on my raspberries and blackberries what to me was new, I would ask of you, or any of your readers, if what I describe is of common occurrence. My attention was first drawn to my raspberries, and subsequently to my blackberries, by noticing the tops of a number of the canes becoming withered and dry. On examination, I found that about four inches from the top were two rows of punctures, about one-fourth of an inch apart, encircling the entire cane, the punctures so close together as to entirely stop the flow of sap. This continued for several weeks. On afterwards examining, I found a small white maggot in the pith of the stalk, below the wound. By what is it caused, and what will be the effect if continued, and what the remedy?—O. S. Cumings, *Springdale, near Trenton Falls, N. Y.*

Sugar Cane, &c.—Chinese Sugar Cane has been cultivated to some extent in this neighborhood the past two years, but is likely to be abandoned for want of a proper mode for making molasses from it. Will some of your readers give us, through the *Genesee Farmer*, plain and practical directions how to *clarify* the juice and make molasses of it.

Do you know anything of the *Imphee* or African sugar cane? Where can the seed be got. Is it better than the Chinese cane? Have any of your readers cultivated it?

Can you tell me how to save *Apricots* from being destroyed by the Curculio?

If you or any of your readers will give me information on the above subjects, through the *Farmer*, I shall thankfully receive it.—Robert Irwin, *Coshocton Co., Ohio.*

Cotswold Sheep.—My Cotswold Sheep are very subject to take cold, though kept in a good, dry shed—have foul noses, and a bad cough continually. Can you or any of your correspondents tell me whether this is not characteristic of the breed; and, if so, what is an efficient remedy? I have tried pine tar pills, with an external application to the nose, also resin and sulphur; all to no effect.—J. J. S., *Westpoint, O.*

Sugar Cane Mills.—Any information through your paper about Chinese sugar cane, and mills for crushing it, will be thankfully read. A mill costing $25 or $30, to be worked by one horse on a sweep, would sell well, as almost every farmer would like one. The prospect now is that raising cane will become quite general.—E. D., *Forestville, Chautauque Co., N. Y.*

Oil Mill.—I would like to enquire of some of your numerous correspondents for the best plan to build an oil mill, and the cheapest, to be worked with one horse power. Also, whether it will pay to drive one with horse power. —Amos A. Albright, *South Cayuga, C. W.*

Notices of Books, Pamphlets, &c.

We have space only to give the titles of the books received during the past month.

LIVES OF THE QUEENS OF SCOTLAND AND ENGLISH PRINCESSES, Connected with the Royal Succession of Great Britain. By Agnes Strickland, author of the "Lives of the Queens of England." Vol. VII. New York: Harper & Brothers. 1859. For sale by D. M. Dewey, of this city.—Price $1.

THREE VISITS TO MADAGASCAR, During the Years 1853, 1854, 1856. Including a Journey to the Capital: With Notices of the Natural History of the Country and the Present Civilization of the People. By the Rev. William Ellis, F. H. S., Author of "Polynesian Researches." Illustrated by wood cuts from Photographs, &c. New York: Harper & Brothers. 1859. Price $3.00. D. M. Dewey.

THE AMERICAN HOME GARDEN: Being Principles and Rules for the Culture of Vegetables, Fruits, Flowers, and Shrubbery. To which are added Brief Notes on Farm Crops, with a Table of their Average Products and Chemical Constituents. By Alexander Watson. Illustrated. New York: Harper & Brothers. 1859. D. M. Dewey. Price $1.50.

FRANKWEI; Or, The San Jacinto in the Seas of India, China, and Japan. By William Maxwell Wood, M. D., U. S. N., Author of "Wandering Sketches in South America, Polynesia, etc.," "A Shoulder to the Wheel of Progress," &c. New York: Harper & Brothers. 1859. D. M. Dewey. Price $1.25.

BUCKLAND'S CURIOSITIES OF NATURAL HISTORY. By Francis T. Buckland, M. A. From the Fourth London Edition. New York: Rudd & Carleton. 1859. Price $1. D. M. Dewey.

ONWARD; Or, The Mountain Chamberers. A Tale of Progress. By Jane Anne Winscom, author of "The Vineyard Laborers," &c., &c. New York: D. Appleton & Co. 1859. D. M. Dewey. Price 75 cents.

TWO WAYS TO WEDLOCK. A Novelette. (Re-printed from the New York *Home Journal.*) New York: Rudd & Carleton. 1859. Price $1. D. M. Dewey.

LIFE OF JOHN H. W. HAWKINS. Compiled by his son, Rev. William George Hawkins, A. M. Boston: John P. Jewett & Co. 1859. Price $1.

THE FOSTER BROTHERS; Being a History of the School and College Life of two Young Men. New York: D. Appleton & Co. 1859. D. M. Dewey. Price $1.

PASSAGES FROM MY AUTOBIOGRAPHY. By Sidney—Lady Morgan. New York: D. Appleton & Co. 1859. D. M. Dewey. Price $1.25.

ADAM BEDE. By George Eliot, Author of "Scenes of Clerical Life." New York: Harper & Brothers. 1859. D. M. Dewey. Price $1.

ETHEL'S LOVE-LIFE. A Novel. By Margaret J. M. Sweat. New York: Rudd & Carleton. 1859. Price $1. D. M. Dewey.

THE CULPRIT FAY. By Joseph Rodman Drake. New York: Rudd & Carleton. 1859. Price 50 cts. D. M. Dewey.

Any of the above works will be sent by the publishers, pre-paid by mail, (for any distance in the United States under 3000 miles,) on receipt of the price annexed.

REVIEW OF THE MARKETS.

GENESEE FARMER OFFICE,
Rochester, N. Y., March 21, 1859.

FLOUR AND GRAIN.—During the past month there has been an advance of 50@75c per bbl. in the price of medium and choice brands of Flour, and a relative advance in the price of good samples of Wheat. Flour of a low grade is not readily disposed of, as it is more liable to heat and sour. There is also another cause: the quality of much of it is such as to render it utterly unfit for human food. An indifferent judge of the quality of Wheat, need only see it to be convinced of the truth of the above assertion, in relation to a large quantity of what comes from the Western States. No process through which it can be conducted by the most skillful Miller, having the best appointed machinery at his command, will so far redeem its quality as to make it even tolerable. It would be instructive, and perhaps somewhat amusing, to understand the rationale of the late, con

tinued advance. It would seem to a casual, but not altogether inattentive, observer, that an adequate cause, if sought after, would be sought in vain. The demand is entirely of a local, or speculative character. The exports of Flour and Grain during the past six months, have not amounted to one-eighth the average quantity for the corresponding period of time in the previous three years. Almost nothing, in this line, has been done within the last three months; and we see it stated in the *Mark Lane Express*, that two vessels have been chartered in London, for the western coast of France, to take in French Flour for New York and Canada, there being a good margin for profit in the adventure. Was the last crop, in this country, so much below an average as to warrant the recent large advance, or to make an investment, in Flour or Wheat, at existing prices safe? If so, is it not strange that, of the many engaged in the business, none should have been able to "discern the signs of the times," or approach an estimate of the true state of the case till near the close of January? Capital seeking employment at a low rate of interest, and the price of Flour and Wheat unusually low, offered rare inducements for speculative operations, if sufficient cause existed to justify such a course; but the market remained dull for months, until some, with more temerity or less dullness than others, began to operate, others soon follow, and in a short time the price is run up beyond a safe point. An investment now, may result favorably; but the risk it would involve is greater than any prudent person would care to run. Much depends on the question of Peace or War, which now agitates the public mind.—Opinions are about equally divided. The present aspect of the matter is rather in favor of Peace.

Coarse Grain generally steady, with a slight improvement.

PROVISIONS.—Most articles in this line sell at an advance on previous quotations. In some a decline is apparent.

CATTLE, SHEEP, AND SWINE, with various fluctuations, stand about as previously quoted, with a slight advance in some of extra quality.

ROCHESTER MARKET.—March 22.

FLOUR—Superfine, $6@$6.50; extra, $7@$7.50 to the trade; market firm.
GRAIN—Wheat, $1.50@$1.75 for white; $1.30@$1.35 for red. Corn, 75c. Barley, 72c@73c. Rye, 75c@77c. Oats, 38c by weight. Beans, 75@80c.
SEEDS—Clover, $4. Timothy, $2.25@$2.50. Flax, $1.50.
PROVISIONS—Mess Pork, $17.00@$18.00. Dressed hogs, $6@$7. Mutton, 6c. Beef, 4½c@5½c. Hams, smoked, 9c@10c. Shoulders, 7c@8c. Lard, 10c@11c. Butter, 18c@20c. Cheese, 8c@10c. Eggs, 11c@12c. Potatoes, 38c@50c.
CATTLE—Live weight, 3½c@5c per lb.
SHEEP—$3.50@$5.00 per head.
HAY—$7@$11 per ton.
WOOL—40c@55c per lb.
The above quotations are to the trade.

NEW YORK MARKET.—March 19.

FLOUR—Market firm. Superfine State, $5.50@$5.80; extra do, $6.50@$6.75; Michigan, Indiana, Ohio, and Iowa superfine, $5.50@$6; extra do, $6.50@$7.80; Ohio round-hoop, $6.65@6.80. Canadian firm; extras, $6.25@$7.50. Southern less active but firm; Baltimore, $6.25@$7.25; Brandywine, $7; Georgetown, $6.75@$7.75; Petersburg city, $7.25@$8.25; Richmond city, $7.40@$8.50. Gallego and Haxall, $8.50@$8.60. Rye flour dull; $3.50@$4.25 for fine and superfine. Corn meal quiet; Jersey, $3.75@$3.80; Brandywine, $4.30@$4.40.
GRAIN—Wheat firm; white, $1.45@$1.80; red Southern, $1.33@$1.55; Canada and Milwaukie club, $1.25@$1.35; Illinois and Ohio red, $1.47@$1.50; Chicago spring, $1@$1.10. Rye firm at 90c@92c. Barley steady at 80c@85c. Oats quiet; Southern, 50c@53c; Jersey, 55c@55c; State, 56c@57c; Western and Canadian 56c@58c. Corn—yellow Jersey and Southern, 89c@91c; mixed Western, 88c@90c; unsound, 85c.
SEEDS—Clover, 10c@11c per lb. Timothy—mowed, $2.25@$2.37½; reaped, $2.50@$2.75 per bushel. Red top, $2.75@$3.00 per five-bushel bag.
PROVISIONS—Pork heavy; new mess, $18.38@$18.37½; old do, $17.75; clear, $21; prime, $18.12½; sour do, $10.37½@10.50. Beef—demand moderate; country mess, $7.50@$9; country prime, $6@$7; Western re-packed, $9.50@$11.25; extra mess, $12.50@$13. Hams, 8½c@9½c. Shoulders, 6½c@6¾c. Lard, 11¾c@12c. Dressed hogs firm at 8c@8½c. Butter—Ohio, 16c@18c; State, 15c@25c; Orange Co., 26c@28c. Cheese, 9c@11c.
BEEF CATTLE—First quality, 11c@11¾c; medium, 9c@10c; ordinary, 8c@9c; extra, 12c@12½c.
SHEEP—$4.50@$3.50 per head.
HOGS—6¼c@6¾c per lb. live weight.
WOOL—Demand limited, stock light, and prices firm. Half to full-blood fleeces, 48c@65c; No. 1 city and extra country Saxony, 55c@58c; California, 18c@30c; choice Saxony held at 70c@75c.

March 22.—Pork 25c lower. In other respects, no material change.

PHILADELPHIA MARKET.—March 19.

FLOUR—Market dull and declining; superfine, $5.50@$6.60; fancy and extra, $6.75@$8. Corn meal firm at $3.75. Rye flour, $4.37½@$4.50.
GRAIN—Wheat scarce; white, $1.75@$1.80; red $1.60@$1.62. Rye, 95c. Corn steady at 85c@86c. Oats, 56c in store. Barley dull.
PROVISIONS—Market inactive.
SEEDS—Clover, $6.25@$6.50, with very little demand.

BUFFALO MARKET.—March 22.

FLOUR—Demand moderate for the home trade; superfine, $5.50@$6; extra, fair to good, $6.25@$6.75; double extras, $6.75@$7.25.
GRAIN—Wheat, $1.33@$1.50 for white; red winter, $1.20@$1.25. Corn, 75c@80c for new; old do, 88c@90c. Rye, 85@90c. Barley, 70c@85c for inferior to good.
SEEDS—Market declining. Clover, $5.62½@$5.75. Timothy, $1.75@$2.87½ for ordinary to choice.
PROVISIONS—Nothing doing.

CHICAGO MARKET.—March 17.

FLOUR—Market quiet but firm; spring superfine on the track, $5; extra, $5.75 delivered.
GRAIN—Wheat—No. 1 red, $1.80 in store; No. 2 do, $1.18; spring, 93c@$1.10 for the range. Corn, 74c@75c. Barley, 50c@60c in store and on the track. Oats, 55c delivered. Rye steady; 90c@92c at depot.
SEEDS—Clover, $6. Timothy, $1.95@$2.
PROVISIONS—Mess Pork, $16.75@$17.25; clear, $18.25. Hams, 9½c. Sugar-cured, 10½c. Lard, 10¾c@11½c. Mess Beef, 9c@10c.

CINCINNATI MARKET.—March 19.

FLOUR—Demand fair at $5.75@$6 for superfine and extra.
GRAIN—Wheat active at full prices. White, $1.45@$1.50; inferior to good red, $1.10@$1.33. Corn firm at 77@79c. Barley 70c, with a steady market. Rye dull at 90c. Oats 62@64c and firm.
SEEDS—Clover $6@$6.25. Timothy $2@$2.25. Flax firm at $1.50.
PROVISIONS—Mess Pork firm at $18. Lard 11¾c@11¾c Bacon 8¾c@9¾c. Hams 8¾c@8¾c; sugar-cured do. 11¾c. Shoulders 6¾c@7¾c. Butter in good demand at 20c@30c for good to choice.
CATTLE—Beef cattle in large supply and market dull. Prices range from $3.50 to $5 per cwt. gross.
HOGS—Supply light. $5.50@$6.75 per cwt. gross.

TORONTO MARKET.—March 19.

FLOUR—Market inactive; superfine, $5.25@$5.50 fancy and extra, $6.75@$7.25.
GRAIN—Fall Wheat, $1.55@$1.68 for good; inferior to medium, $1.40@$1.45; spring, $1.35@$1.40. Barley, $1 and sought after. Rye, 95c@$1. Peas 95c@$1. Oats 55c@58c.
PROVISIONS—Butter, 20c@25c. Potatoes, 65c@70c.

LONDON MARKET.—February 26.

FLOUR—Market for flour inactive. American, sour, $4.80@$5.50; sweet, —.
GRAIN—Wheat dull; best qualities only moving slowly at former rates. American white, $1.26@$1.44; red do., $1.23@$1.38. Indian corn, —.
SEEDS—Demand active. Red clover, 13c@15c per lb.; white do., 16c@20c. Linseed, $1.92 per bush. for sowing, and $1.62@$1.74 for crushing.
WOOL—Per lb. for the range, 25c@65c.

LIVERPOOL MARKET.—February 25.

FLOUR—Market very inactive. Western canal, $4.68@$5.16; Baltimore and Philadelphia, $5.16@$5.40; Ohio, $5.64@$6.50; Canadian, $4.68@$6.20; sour, $4.30@$4.68.
GRAIN—American white wheat, $1.26@$1.56; red and mixed do., $1@$1.38 per bush. of 60 lbs. Indian corn, white, $1@$1.04; yellow do., 88c@90c; mixed, 84c@86c per bush. of 60 lbs.
SEEDS—Red clover, 12c@14c per lb. Linseed, $1.47 per bush.
WOOL—For the range, 12c@40c per lb.

BRIGHTON CATTLE MARKET.—March 17.

At market, 950 Beeves, 90 Stores, 3000 Sheep and Lambs, 1200 Swine.
PRICES—Market Beef—Extra, $8.75@$9.00; First quality, $7.75; Second, $6.50; Third, $5.00. Milch Cows—$39 @ $40; Common, $19@$30. Veal Calves—$3@$6. Yearlings—none. Two Years old—$26@$31. Three Years old—$26@$31. Hides—7¾c@8c per lb. Calf Skins—14c@15c per lb. Tallow—7¾c@8c. Sheep and Lambs—$1.75@$2.75; extra, $3.00@$6.00 Pelts—$1.50@$1.75. Swine—Pigs, 5¾c@6c; retail, 6c@7¾c.

ADVERTISEMENTS,

To secure insertion in the FARMER, must be received as early as the 10th of the previous month, and be of such a character as to be of interest to farmers. TERMS—Two Dollars for every hundred words, each insertion, PAYABLE IN ADVANCE.

JAPAN PIE MELON—100 seeds for 30 cents.
ap1t J. J. WYCHE, Henderson, N. C.

NOTICE—Virginia Farms for sale. Apply to
ap3t* CORNELIUS GUARD, Dowdalls Office, Va.

POLAND OATS—$1.25 per bushel or $3 per barrel.
ap1t* P. SUTTON, Ransom, Luzerne county, Pa.

JOHN DORR, Attorney and Counsellor at Law, Scottsville, Monroe county, N. Y., will give prompt attention to any business in Western New York. ap1t

FOR SALE—A small quantity of Prince Albert Potatoes. Price $5 per barrel, delivered aboard of cars. Warranted genuine. ap1t* D. NORTON, JR., Pittstown, Rens. Co., N. Y.

HARDY NATIVE EVERGREENS,—JOHN W. ADAMS, Portland, Maine, continues to supply Arbor Vitæ and other Evergreens, in quantities, at his usual prices. Catalogue sent on application. ap1t

FOR EARLY PARIS CAULIFLOWER and Premium Flat Dutch Cabbage, the best varieties known, at 12½ cents each per package, address RURAL EMPIRE CLUB,
April—1t Macedon Center, Wayne county, N. Y.

PERUVIAN GUANO.—No. 1 Peruvian Guano, Government brand and weight, direct from Peruvian agents, in quantities to suit purchasers, at the lowest market price.
March, 1859.—3t A. LONGETT, 34 Cliff St., New York.

PURE HUNGARIAN GRASS SEED—"Honey Blade" and all—and Georgia Chinese Sugar Cane Seed—in samples of two or four ounces each, gratuitous Inclose stamps to pay postage, and address RURAL EMPIRE CLUB,
April—1t Macedon Center, Wayne county, N. Y.

RUSSIA OR BASS MATTS—Selected expressly for budding and tying. GUNNY BAGS, TWINES, &c., suitable for Nursery purposes, for sale in lots to suit, by D. W. MANWARING, Importer,
August, 1858.—1y* 248 Front Street, New York.

FOR SALE—My thorough-bred Durham Bull "North Star," (deep red,) calved March, 1856. Dairymen wishing to improve their stock will do well to call and examine said bull, as he is descended from a long line of deep milkers. Inquire of the subscriber. ap1t* O. S. CUMINGS, Trenton Falls, N. Y.

THE SWEET POTATO SUCCESSFULLY CULTIVATED IN THE NORTH.—Statements from those who grew them, and information relative to procuring plants and seed, and propagation of plants, culture, &c., sent on receipt of a stamp.
O. S. MURRAY & SON,
April—1t Twenty Miles Stand, Warren county, Ohio.

14,349 LOCAL AGENTS WANTED—To sell trees of the KING OF TOMPKINS COUNTY Apple, the best variety known, which originated near and was first introduced by us. Also, all other kinds of fruit. Apply by mail to E. C. FROST, Havana, N. Y., and get a plate of the King and price catalogue free. ap1t*

TREES AND PLANTS—At the Batavia Nursery, Batavia, Genesee county, N. Y. The subscriber offers for sale a general assortment of Fruit and Ornamental Trees, Grapes, Currants, Gooseberries, Raspberries, Strawberries, Shrubs, Roses, Peonies, Dahlias, Greenhouse and Bedding Plants, &c., at very reasonable prices. Descriptive Catalogues furnished on application. ap2t A. LOOMIS, Batavia, Genesee county, N. Y.

GRAPES BY MAIL.—Diana, Rebecca, Northern Muscadine Concord, Hartford Prolific, King, Tokalon, Child's Superb, and forty-six other sorts of hardy native grape vines for sale.
Well-rooted plants can be prepared for planting, and sent by mail, carefully packed in oiled silk, and postage paid, on receipt of one dollar each. Delaware and Logan vines at three dollars each. Address C. P. BISSELL & SALTER,
Feb. 1, 1859.—4t Rochester, N. Y.

TO FARMERS AND LUMBER DEALERS.—Scribner's Ready Reckoner and Log Book is one of the most complete and reliable books for measuring all kinds of saw logs, boards, plank and lumber of all kinds, that can be found. Its sale has been constantly increasing ever since its publication, until over 200,000 copies have been sold.
No farmer, lumber merchant, or business man, should be without a copy, as it contains a large number of useful tables that are constantly wanted for reference. Price only 25 cents; five copies sent for one dollar, *postage paid*.
Agents and peddlers can make money by selling the book.
Address, GEO. W. FISHER,
ap1t Bookseller and Stationer, Rochester, N. Y.

FIRST PREMIUM

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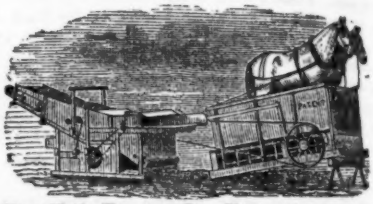
MADE BY G. WESTINGHOUSE & Co.,

SCHENECTADY, N. Y.

First Premiums at the State Fairs of New York and Michigan in 1855, New York and New Jersey in 1857, and New York in 1858.



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Three-Horse Power,	140
Two-Horse Power,	75
One-Horse Power,	90

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Large Thresher and Winnower, with Tailing Elevator for Three Horse Endless Chain or Lever Power,	145
Thresher and Separator, (26 inch Cylinder,)	45
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Clover Machine without Cleaner,	40
Circular Wood Saw, (24 inch Saw, Railway Table,)	40
Circular Wood Saw, (24 inch Saw, Slide Table,)	57
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Pusey's Patent Governor, in connection with Power,	5
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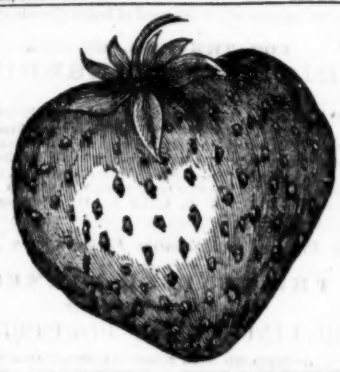

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